### Town of Chase City and Town of Blackstone/Fort Pickett Area

Public Transportation Feasibility Study



Prepared for the Virginia Department of Rail and Public Transportation

March 5, 2010

# Final Report

Public Transportation Feasibility Study

### **DISCLAIMER**

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### **TABLE OF CONTENTS**

<u>PROJ</u>	ECT LOCATION AND REPORT ORGANIZATION	VI
<u>TOW</u>	N OF CHASE CITY	<u>1</u>
	MARY	
NEED	OS ASSESSMENT	3
A.	GOALS AND OBJECTIVES	3
В.	REVIEW OF PREVIOUS STUDIES	3
	1. Town of Chase City's Comprehensive Plan (1998)	
	2. Southside (PDC 13) Coordinated Human Service Mobility Plan (June, 2008)	
	3. Mecklenburg County Comprehensive Plan (2005 - markups on 1987 plan)	4
	4. Chase City 2020 Transportation Plan (2001)	4
C.	PUBLIC TRANSPORTATION NEEDS ASSESSMENT	6
	1. Key Activity Centers	6
	2. Demographics Analysis	
	3. Local Stakeholder Input	15
D.	ASSESSMENT OF TRANSPORTATION POTENTIAL AND UNMET NEEDS	16
EVAL	UATION OF TRANSPORTATION PROVIDERS	17
A.	CURRENT PROVIDERS AND SERVICES	17
	Magnitude and Extent of Services	18
	2. Efficiency, Effectiveness, Costs and Reliability	18
	3. Funding	20
	4. Duplication of Services	20
В.	CAPACITY FOR FUTURE EXPANSION	20
	1. Coordination among Providers	20
	2. Capability to Expand Services	
	3. Ability to Receive Federal Funding	20
C.	LOCAL PROVIDER OPINIONS AND POSSIBLE COURSES OF ACTION	21
SERV	VICE AND ORGANIZATIONAL ALTERNATIVES	22
A.	SERVICE GOALS	22
В.	SERVICE AREA	22
C.	Types of Service	22
	1. Deviated Fixed-Route Service	22
	2. Demand-Responsive Service	23
D.	SERVICE FREQUENCY AND DURATION	23
E.	Transit Service Alternatives	23
	1. Alternative 1 – Deviated Fixed-Route (Service Frequency: 60 minutes,	
	Service Duration: 7:30 am-5:00 pm) – Town of Chase City	23
	2. Alternative 2A – Deviated Fixed-Route (Service Frequency: 45 Minutes, Service Duration:	
	7:30 am-5:00 pm) – Town of Chase City	26

	3. Alternative 2B – Deviated Fixed-Route, "Figure 8" (Service Frequency: 60 minutes,	26
	Service Duration: 7:30 am-5:00 pm) – Town of Chase City	26
	Service Duration: 7:30 am-6:00 pm) – Town of Chase City	30
F.	ORGANIZATIONAL STRUCTURE	
• •	1. Institutional Structure	
	2. Operations Staffing	
G.	COSTS AND FUNDING SOURCES	
	1. Capital Costs	
	2. Operating Costs	
	3. Funding Sources	35
RECO	DMMENDATIONS	37
A.	SERVICE PLAN	37
	1. Near term Services	37
	2. Long Term Services	37
	3. Transit Supportive Development	38
В.	Organizational Plan	38
C.	FINANCIAL PLAN	38
D.	Transit Service Plan Summary	38
TOW	'N OF BLACKSTONE/FORT PICKETT AREA	10
	IMARY	
	OS ASSESSMENT	
A.	GOALS AND OBJECTIVES	42
В.		
	1. Town of Blackstone Comprehensive Plan (2000)	
	2. Nottoway County Comprehensive Plan (2004)	
	3. Blackstone Area Bus System (BABS) Transit Development Plan (TDP) (October, 2009)	
	4. Fort Pickett Master Plan	43
	5. Commonwealth Regional Council (PDC 14) Coordinated Human Service Mobility Plan (June, 2008)	43
C	PUBLIC TRANSPORTATION NEEDS ASSESSMENT	
C.	1. Key Activity Centers	
	Demographic Analysis	
	3. Local Stakeholder Input	
D.	ASSESSMENT OF TRANSPORTATION POTENTIAL AND UNMET NEEDS	
EVAI	LUATION OF TRANSPORTATION PROVIDERS	54
	CURRENT PROVIDERS AND SERVICES	54
	CURRENT PROVIDERS AND SERVICES	
	Magnitude and Extent of Services	54
	Magnitude and Extent of Services	54 60

В.	CAPACITY FOR FUTURE EXPANSION
	1. Coordination among Providers
	2. Capability to Expand Services
	3. Ability to Receive Federal Funding
C.	LOCAL PROVIDER OPINIONS AND POSSIBLE COURSES OF ACTION
SERV	ICE AND ORGANIZATIONAL ALTERNATIVES63
A.	SERVICE GOALS63
В.	SERVICE AREA63
c.	TYPE OF SERVICE63
D.	SERVICE FREQUENCY AND DURATION64
E.	Transit Service Alternatives64
	1. Alternative 1 – Deviated Fixed-Route (Service Frequency: 60 minutes, Day Service Duration:
	7 am – 5 pm, Evening Service Duration: 5 pm – 11 pm) – Town of Blackstone/Fort Pickett Area. 64
	2. Alternative 2 – Deviated Fixed-Route (Service Frequency: 60 minutes, Day Service Duration: noon – 5 pm, Evening Service Duration: 5 pm – 11 pm) – Town of Blackstone/Fort Pickett Area. 67
	3. Alternative 3 – Deviated Fixed-Route (Service Frequency: 90 minutes, Day Service Duration:
	7 am – 5 pm, Evening Service Duration: 5 pm – 11 pm) – Town of Blackstone/Fort Pickett Area. 69
F.	ORGANIZATIONAL STRUCTURE71
	1. Institutional Structure
	1. Institutional Structure   71     2. Operations Staffing   72
G.	
G.	2. Operations Staffing
G.	2. Operations Staffing
G.	2. Operations Staffing72COSTS AND FUNDING SOURCES721. Capital Costs72
	2. Operations Staffing
RECC	2. Operations Staffing       72         COSTS AND FUNDING SOURCES       72         1. Capital Costs       72         2. Operating Costs       73         3. Funding Sources       73
RECC	2. Operations Staffing       72         COSTS AND FUNDING SOURCES       72         1. Capital Costs       72         2. Operating Costs       73         3. Funding Sources       73         DMMENDATIONS       76         SERVICE PLAN       76         1. Near Term Services       76
RECC	2. Operations Staffing       72         COSTS AND FUNDING SOURCES       72         1. Capital Costs       72         2. Operating Costs       73         3. Funding Sources       73         DMMENDATIONS       76         1. Near Term Services       76         2. Long Term Services       76
RECC	2. Operations Staffing       72         COSTS AND FUNDING SOURCES       72         1. Capital Costs       72         2. Operating Costs       73         3. Funding Sources       73         DMMENDATIONS       76         SERVICE PLAN       76         1. Near Term Services       76         2. Long Term Services       76         3. Transit Supportive Development       77
RECC	2. Operations Staffing       72         COSTS AND FUNDING SOURCES       72         1. Capital Costs       72         2. Operating Costs       73         3. Funding Sources       73         OMMENDATIONS       76         SERVICE PLAN       76         1. Near Term Services       76         2. Long Term Services       76         3. Transit Supportive Development       77         ORGANIZATIONAL PLAN       77
RECC A.	2. Operations Staffing       72         COSTS AND FUNDING SOURCES       72         1. Capital Costs       72         2. Operating Costs       73         3. Funding Sources       73         DMMENDATIONS       76         SERVICE PLAN       76         1. Near Term Services       76         2. Long Term Services       76         3. Transit Supportive Development       77
RECC A. B. C.	2. Operations Staffing       72         COSTS AND FUNDING SOURCES       72         1. Capital Costs       72         2. Operating Costs       73         3. Funding Sources       73         OMMENDATIONS       76         SERVICE PLAN       76         1. Near Term Services       76         2. Long Term Services       76         3. Transit Supportive Development       77         ORGANIZATIONAL PLAN       77

### **LIST OF TABLES**

Table 1: Key Activity Centers/Potential Destination Points in the Town of Chase City	10
Table 2: Demographic Data Mecklenburg County and Town of Chase City	11
Table 3: Regional Transportation Service Providers	19
Table 4: Operating Costs and Funding Structure of Lake Area Bus (LAB) and Blackstone Area Bus Syster	n
(BABS) – 5311 FY2010 Budget	19
Table 5: Advantages and Disadvantages of Alternative 1 – Town of Chase City	24
Table 6: Advantages and Disadvantages of Alternative 2A and 2B – Town of Chase City	27
Table 7: Advantages and Disadvantages of Alternative 3 – Town of Chase City	30
Table 8: Anticipated Capital Cost Estimate And Funding Contributions – Town of Chase City	33
Table 9: Anticipated Annual Operating Cost Estimate And Funding Contributions – Town of Chase City.	34
Table 10: Blackstone/Crewe and LAB Operation and Maintenance Budget, Source Funds	35
Table 11: Service Alternatives Comparison – Town of Chase City	36
Table 12: Transit Service Plan –Town of Chase City	39
Table 13: Demographic Data Nottoway County	
Table 14: Key Activity Centers/Potential Destination Points in the Town of Blackstone/Fort Pickett Area	a .45
Table 15: Regional Transportation Service Providers, Planning District Commission 14	54
Table 16: Blackstone Area Bus System (BABS) Operations Summary	58
Table 17: System-Wide Blackstone Area Bus System (BABS) Ridership (2003-2009) – By Route	59
Table 18: Blackstone Area Bus System (BABS) Operation & Maintenance Budget FY 2009, Source Funds	s61
Table 19: Advantages and Disadvantages of Alternative 1 – Deviated Fixed-Route –	
Town of Blackstone/Fort Pickett Area	65
Table 20: Advantages and Disadvantages of Alternative 2 – Deviated Fixed-Route –	
Town of Blackstone/Fort Pickett Area	67
Table 21: Advantages and Disadvantages of Alternative 3 – Deviated Fixed-Route –	
Town of Blackstone/Fort Pickett Area	71
Table 22: Anticipated Capital Cost Estimate And Funding Contributions –	
Town of Blackstone/Fort Pickett Area	72
Table 23: Anticipated Annual Operating Cost Estimate And Funding Contributions—	
Town of Blackstone/Fort Pickett Area	73
Table 24: Blackstone Area Bus System (BABS) Operation & Maintenance Budget FY 2009 Source Funds	s74
Table 25: Service Alternatives Comparison – Town of Blackstone/Fort Pickett Area	
Table 26: Transit Service Plan –Town of Blackstone/Fort Pickett	78

### **LIST OF FIGURES**

Figure 1: Location Map – Town of Chase City	vii
Figure 2: Location Map – Town of Blackstone/Fort Pickett	viii
Figure 3: Transit Need by Ranked Density of Transit Dependent Persons	5
Figure 4: Existing Land Use Map – Town of Chase City	7
Figure 5: Zoning Map – Town of Chase City	8
Figure 6: Key Activity Centers/Potential Destination Points – Town of Chase City	9
Figure 7: Population Density in Town of Chase City (persons per square mile)	12
Figure 8: Percent of Persons 65 years and Older	
Figure 9: Percent of Persons 21 to 64 years of age with a Disability	14
Figure 10: Alternative 1 – Deviated Fixed-Route – Town of Chase City	
Figure 11A: Alternative 2A— Deviated Fixed-Route— Town of Chase City	
Figure 11B: Alternative 2B – Deviated Fixed-Route "Figure 8" – Town of Chase City	29
Figure 12: Alternative 3 – Demand-Responsive Service Only – Town of Chase City	31
Figure 13: Zoning Map – Town of Blackstone/Fort Pickett	
Figure 14: Key Activity Centers/Potential Destination Points – Town of Blackstone/Fort Pickett	47
Figure 15: Population Density in Town of Blackstone/Fort Pickett Area (persons per square mile)	49
Figure 16: Percent of Persons 65 years and Older – Town of Blackstone/Fort Pickett Area	50
Figure 17: Percent of Persons 21 to 64 years of age with a Disability – Town of Blackstone/Fort Picket	:t
Area	
Figure 18: Fort Picket Population (by month)	
Figure 19: Blackstone Area Bus System Transit Routes	
Figure 20: Blackstone Area Bus System (BABS) Transit Routes – Town of Blackstone Route	
Figure 21: Blackstone Area Bus System (BABS) System-Wide Ridership (2003-2009)	
Figure 22: Alternative 1 – Deviated Fixed-Route – Town of Blackstone/Fort Pickett Area	
Figure 23: Alternative 2 – Deviated Fixed-Route – Town of Blackstone/Fort Pickett Area	68
Figure 24: Alternative 3 – Deviated Fixed-Route – Town of Blackstone/Fort Pickett Area	70

### PROJECT LOCATION AND REPORT ORGANIZATION

The Town of Chase City, the Town of Blackstone, Fort Pickett, Blackstone Area Bus System (BABS) and the Blackstone Chamber of Commerce requested a feasibility study of public transportation service for the Town of Chase City and the Town of Blackstone/Fort Pickett area using funds from the Virginia Department of Rail and Public Transportation (DRPT). The purpose of the study was to address the public transportation needs for these two, diverse localities by: assessing the level of demand for transit, designing potential transit service types, and estimating the cost of providing each type of service. The Town of Chase City, The Town of Blackstone, Fort Pickett, BABS, Southside Virginia Community College (SVCC) and the Blackstone Chamber of Commerce were key stakeholders providing input to the study. For a list of local stakeholders and representatives see Appendix A. The Department of Rail and Public Transportation managed the study on their behalf.

As shown in **Figure 1**, The Town of Chase City is located in Mecklenburg County, in the Southside Planning District of Virginia. The Town is located approximately 100 miles southwest of Richmond.

As shown in **Figure 2**, The Town of Blackstone is located in Nottoway County, in the southern part of Virginia. The Town is approximately 50 miles southwest of Richmond. Fort Pickett is located directly east of the Town.

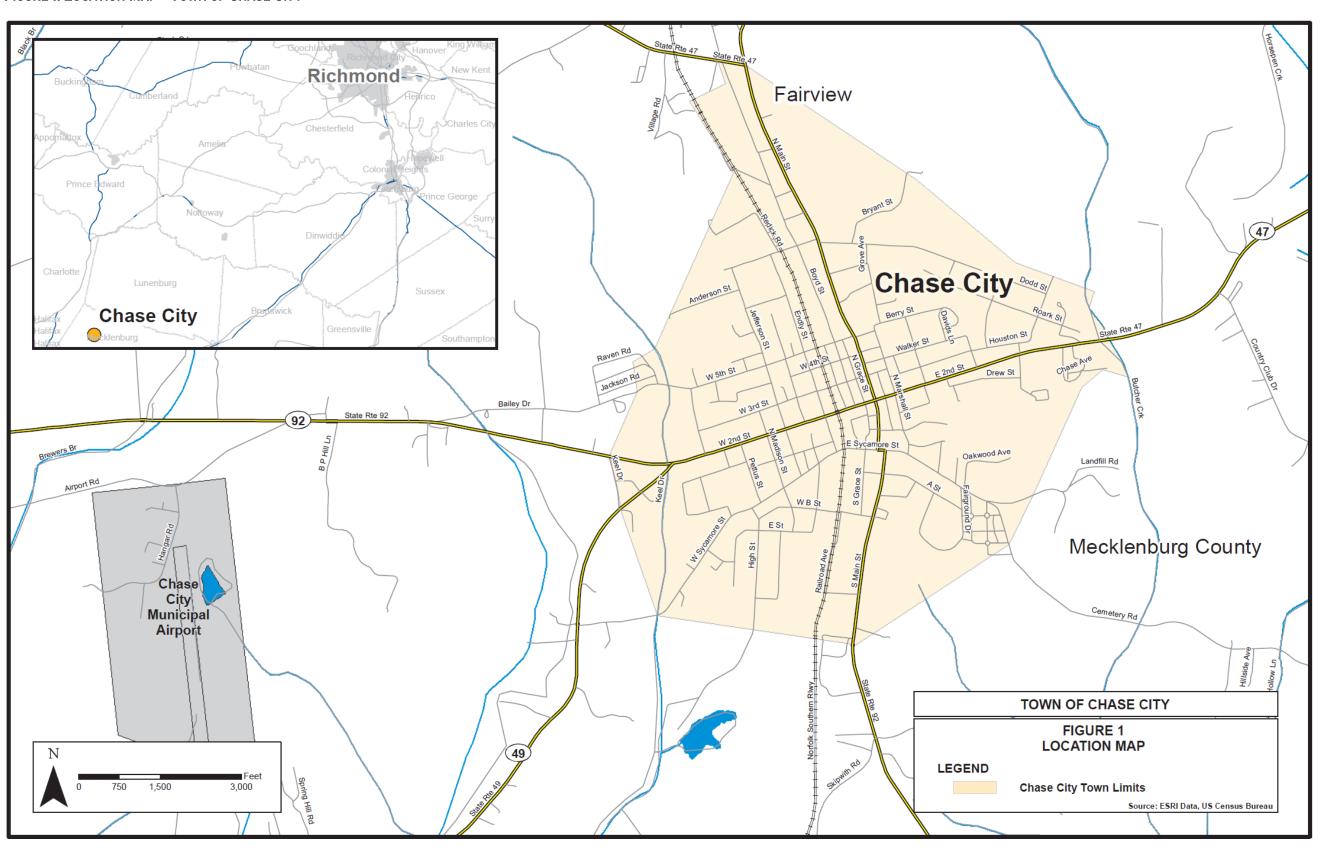
This draft final report uses findings from prior technical memoranda to present recommended transit services plans for the Town of Chase City and the Town of Blackstone/Fort Pickett area. The three prior technical memoranda are listed below.

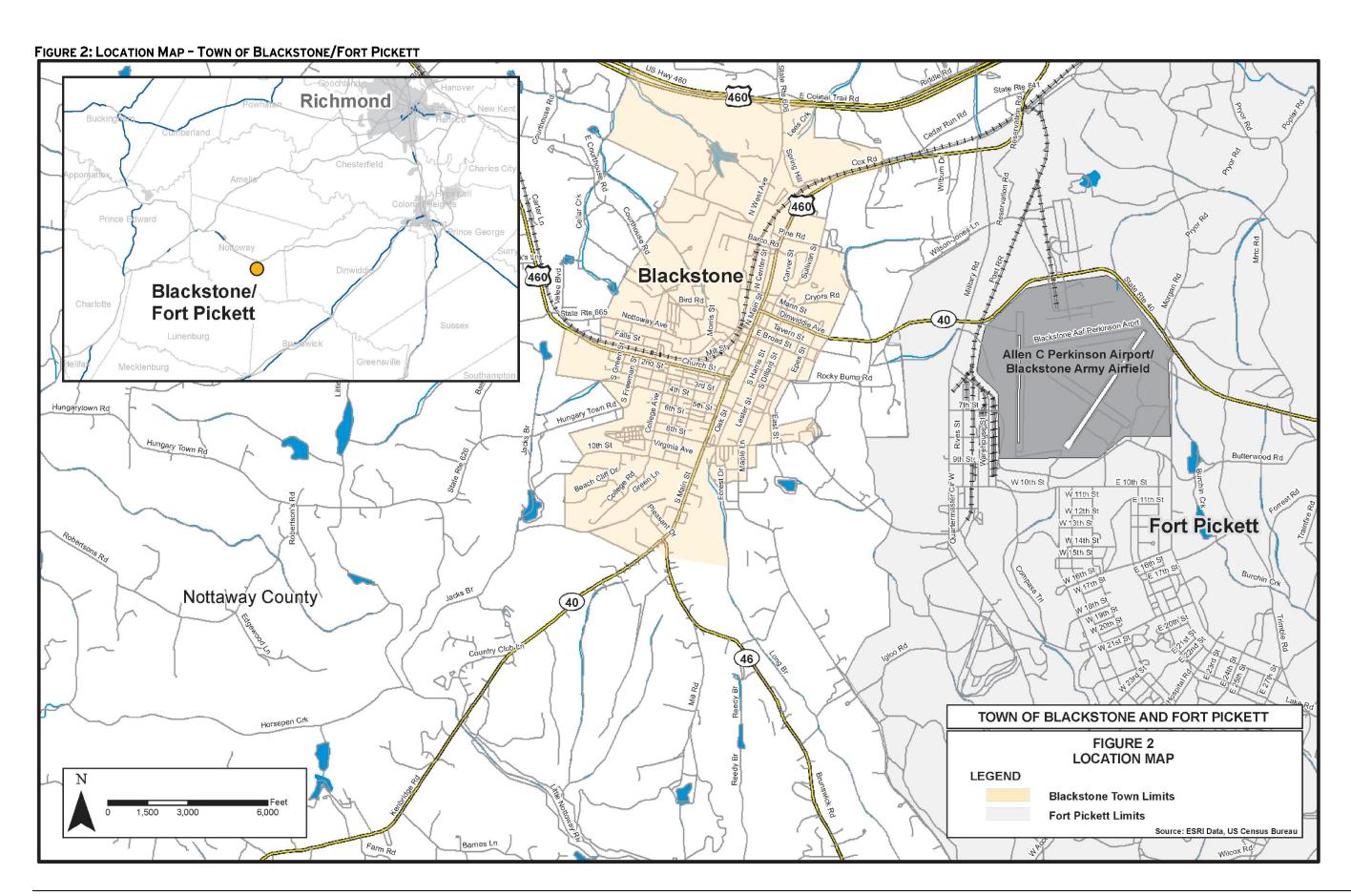
- Technical Memorandum #1 (dated December 4, 2009) provided an overview of existing conditions and an assessment of public transportation needs.
- Technical Memorandum #2 (dated December 8, 2009) evaluated existing transportation providers.
- Technical Memorandum #3 (dated December 22, 2009) compared existing needs to existing services and proposed service alternatives as well as potential costs of operation and maintenance, and recommendations for implementation.

This report treats the Town of Chase City and the Town of Blackstone/Fort Pickett area individually. The first half of this final report presents study data, findings, and recommendations for the Town of Chase City, followed by a similar complete set of date, findings, and recommendations for the Town of Blackstone and the Fort Pickett area.

Each complete set of data, findings, and recommendations includes a brief summary highlighting the recommended transit alternative for the respective Towns. The summary is followed by: an overview of existing conditions and an assessment of public transportation needs; an evaluation of public transportation services currently available; and proposed service and organizational alternatives. Each section also provides a recommended service, organizational, and financial plan.

FIGURE 1: LOCATION MAP - TOWN OF CHASE CITY





# Town of Chase City

Final Report

Public Transportation Feasibility Study

### **SUMMARY**

After conducting a public transportation needs assessment for the area in and around the Town of Chase City, examining existing providers, and proposing possible transit alternatives, this study recommends deviated fixed-route transit service (Alternative 1) in the near term (see Figure 10). It is suggested that 'turnkey' service be used in the Town of Chase City. Blackstone Area Bus System (BABS), Lake County Area Agency on Aging (LCAAA), or a similar service could offer turnkey operations, handling grant applications, regulatory requirements, heavy maintenance, human resources, and bookkeeping. In the long term, if there is sufficient interest and multi-jurisdictional support, it may be appropriate to consider expanding service to neighboring towns such as the Town of Boydton, Clarksville, and/or Victoria.

A detailed look at the analysis leading up to the above recommendations is provided in the following pages. A summary of the Town of Chase City's Transit Service Plan, which includes organizational and financial recommendations, is provided toward the end of this section, in Table 12.

### **NEEDS ASSESSMENT**

Below is information regarding the needs assessment for public transportation for the area in and around the Town of Chase City.

#### A. Goals and Objectives

The Study Team held meetings with representatives of the Town of Chase City to discuss the transit needs of the community and to assess available data for the study. The Study Team conducted additional interviews to further assess the needs of the potential users (See **Appendix A**). From these interviews, it was clear that stakeholders desire transit service that will serve the Town's citizens, especially the senior and disabled population in the area. Based on comments from the stakeholders, it was determined that potential public transportation system types should be focused on the area in and around the Town limits and should accomplish the following objectives:

- Increase transportation choices and improve mobility;
- Offer lower cost transportation options; and
- Stimulate economic development, especially in the downtown area of Chase City.

#### **B.** Review of Previous Studies

As part of this study, the Study Team reviewed relevant comprehensive plans and other relevant documents. Relevant information contained in these documents is summarized below.

#### 1. Town of Chase City's Comprehensive Plan (1998)

The main transportation goals of the Comprehensive Plan are to safely and efficiently accommodate future expansion of the Town, encourage economic development, aid the disabled, improve shopping efficiency, promote programs that help those without transportation get to work, and develop pedestrian and biking facilities. Specifics are detailed below.

- Maple Manor located in Endly Street, Chase Place located on S. Hervey Street, and Chase Run Apartments located on Chase Avenue are the major housing locations for the elderly/disabled in the area.
- The Comprehensive Plan states that since the 1990 Census, three major industries have closed, and 600 jobs were lost in the area. The majority of occupations were reported as manufacturing (i.e., machine operations), and the major industry in the area is tobacco, though the market for tobacco has declined in Chase City since 1989.
- Chase City's Public Works Department is responsible for repairing and maintaining Town streets, and the primary roads (i.e., Highway 47, Highway 49, and Highway 92) are maintained by VDOT.

#### 2. SOUTHSIDE (PDC 13) COORDINATED HUMAN SERVICE MOBILITY PLAN (JUNE, 2008)

Coordinated Human Service Mobility Plans for each Planning District or similar area were mandated as part of the requirements of SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users – PL 190-059). This plan constructs a unified comprehensive strategy for transportation service delivery in the Southside Planning District focusing on unmet transportation needs of seniors, people with disabilities, and people with low incomes. One specific item related to the Town of Chase City was that it is one of a few small pockets of densely concentrated populations with a high potential of transit dependent persons (See Figure 3).

#### 3. MECKLENBURG COUNTY COMPREHENSIVE PLAN (2005 - MARKUPS ON 1987 PLAN)

The original 1987 Comprehensive Plan has been updated and re-adopted in 1993, 2000, and 2006. The population of Mecklenburg County increased only slightly from 2000 to 2004 from 32,380 to 32,493 (113 person increase). The population is anticipated to continue this modest upward trend with an anticipated population of 32,900 by 2010. Some of this increase is due to the creation of Kerr Reservoir and Lake Gaston, each of which increase tourism, recreation, and vacation/retirement opportunities.

Currently there are three airports in the County, one located just outside Chase City (Chase City Municipal Airport). This general aviation airport has a 3,200-foot paved runway and is attended during the daylight hours. The remaining two airports in the County are the Marks Municipal Airport (Clarksville) and the Mecklenburg/Brunswick Regional Airport (between South Hill and Brodnax). Both of these airports are general aviation airports with the Mecklenburg/Brunswick Regional Airport offering radar service for use in inclement weather (for Instrument Rated Pilots).

In addition to the airport, Norfolk-Southern Railway serves the County with one line from Keysville to Durham, North Carolina<sup>2</sup> passing through Chase City and Clarksville. Passenger service is not available on this line. The nearest passenger service is provided in Danville and Petersburg (50 and 60 miles from the Town respectively).

#### 4. CHASE CITY 2020 TRANSPORTATION PLAN (2001)

The 2020 Transportation Plan reviewed all modes of travel and identified needs based on capacity, safety, and engineering aspects of the transportation system. Between 1980 and 2000, the population of the Town of Chase City has remained relatively constant at approximately 2,500 inhabitants. The population is expected to remain stable through 2020, the Plan's horizon year. .

<sup>&</sup>lt;sup>1</sup> The Southside (PDC 13) Coordinated Human Service Mobility Plan (June 2008) was prepared for the counties of Brunswick, Halifax, and Mecklenburg.

Since the adoption of this plan, the Keysville to Durham rail spur has become inactive. In its stead, a 75-mile Virginia Southern (VS) route runs from Burkeville, VA south to Oxford, NC, connecting the main Norfolk Southern lines between Norfolk and Roanoke. The line is unsignalized and limited to top speed of 25 mph. Track conditions in some places require slower speeds. Currently, VS operates two crews on the line. Most interchange duties along the line occur in darkness.

FIGURE 3: TRANSIT NEED BY RANKED DENSITY OF TRANSIT DEPENDENT PERSONS SOUTHSIDE CAMBRIDGE TRANSIT NEED BY RANKED DENSITY OF TRANSIT DEPENDENT PERSONS Legend Relative Transit Need Places Major Highways High Southside Counties Medium Data Source: Census 2000 ESRI Data CD Low 40 501 47) Halifax 360 Chase City Brunswick 11 Halifax Scottsburg OLawrenceville 360 Brodnax 58 OSouth Hill (49) OSouth Boston Mecklenburg [58] Clarksville 85 15 North Carolina

Source: Southside (PDC 13) Coordinated Human Service Mobility Plan (2008)

#### C. Public Transportation Needs Assessment

Currently there is not a public transportation system in the Town of Chase City.

The transit needs of the Town of Chase City have been identified based on the following:

- a) Review of relevant studies and local plans;
- b) Demographic analysis based on Census 2000 information (population, density, number of households, age distribution, and households with no auto availability);
- c) Identification of key activity centers provided by representatives from BABS, DRPT, Estes Community Center (a branch of Southern Virginia Community College SVCC) and Town of Chase City officials; and
- d) Local stakeholder input provided in interviews and telephone conversations.

#### 1. KEY ACTIVITY CENTERS

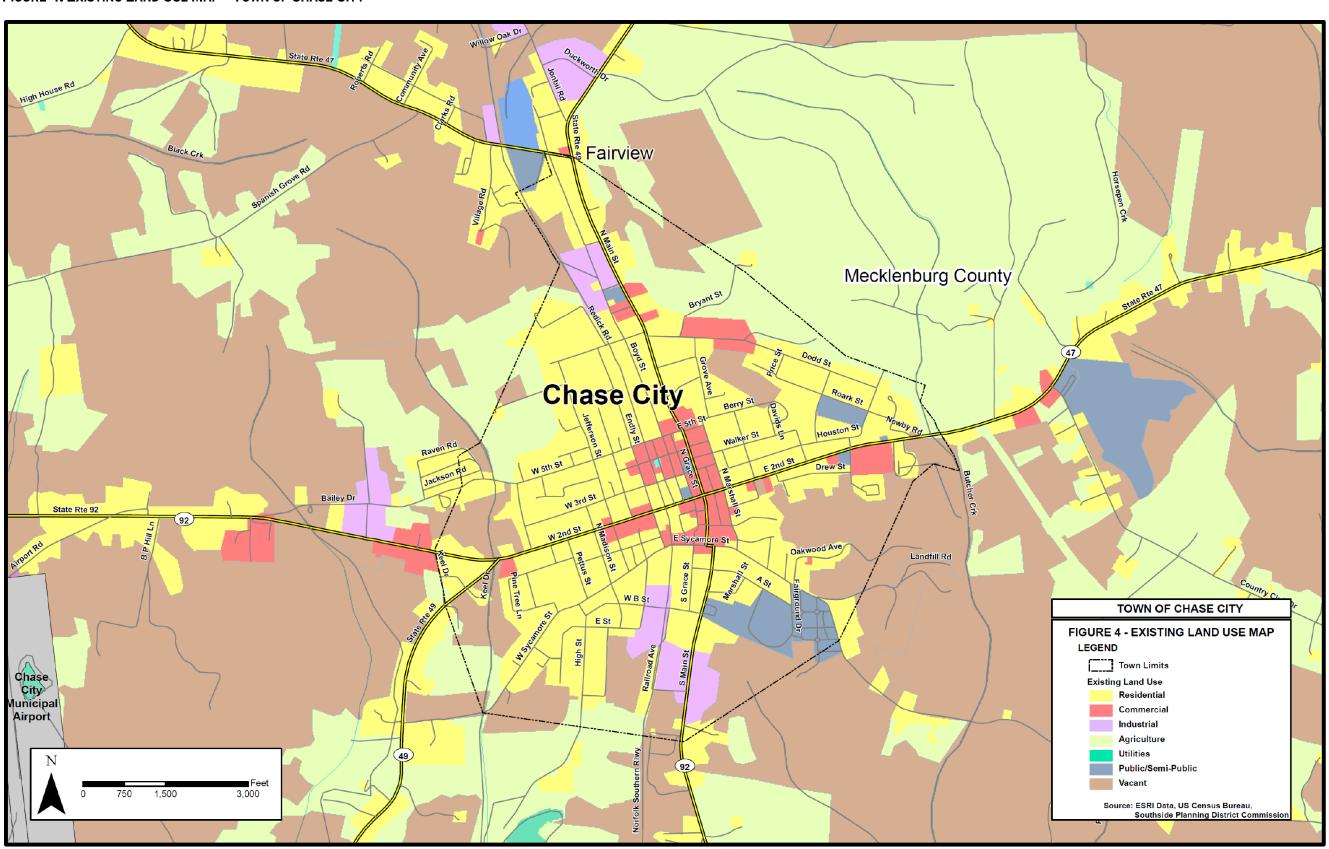
**Figures 4 and 5** show land use and zoning respectively in the Town of Chase City. The Town is primarily residential with commercial areas located along Main Street. The vacant southeastern portion of the Town is a potential area for development. Within the past 2 to 3 years, the Town of Chase City was engaged in a process of revitalizing its retail core by moving all utilities underground, providing new sidewalks and colored, stamped, concrete crosswalks, benches, decorative streetlights as well as new store facades. As **Figure 6** indicates, most of the major activity centers in the Town of Chase City are located along Main Street with the exception of Lowes Food; a major retail store located in the outskirts of Town on E 2<sup>nd</sup> Street, approximately one mile east of Main Street.

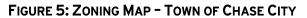
Other major activity centers in and around Chase City include:

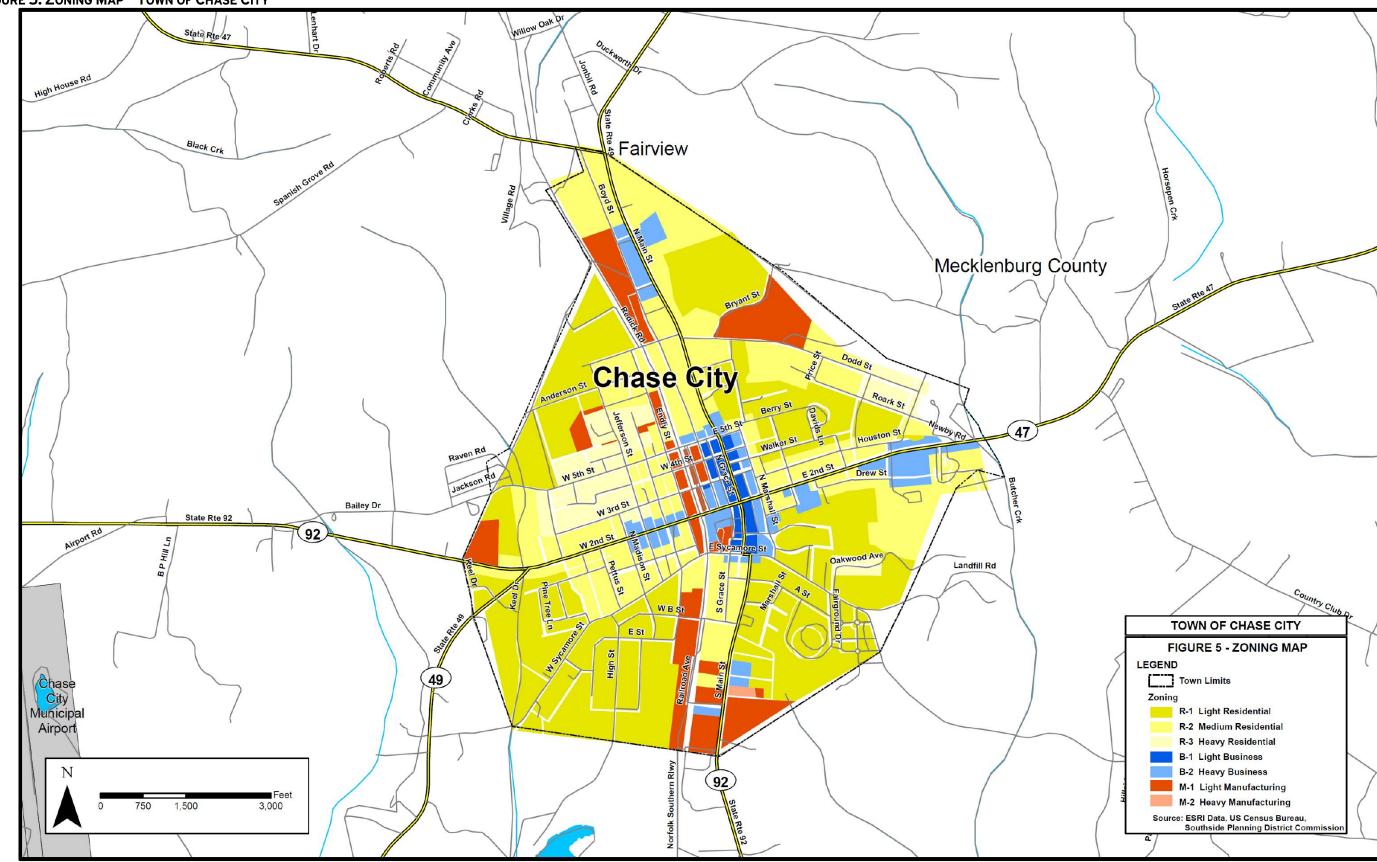
- Boydton, which is located approximately 10.5 miles south of Chase City;
- Spanish Grove , which is approximately 5.6 miles west of Chase City; and
- Kells Corner, which is approximately 6.8 miles north of Chase City.

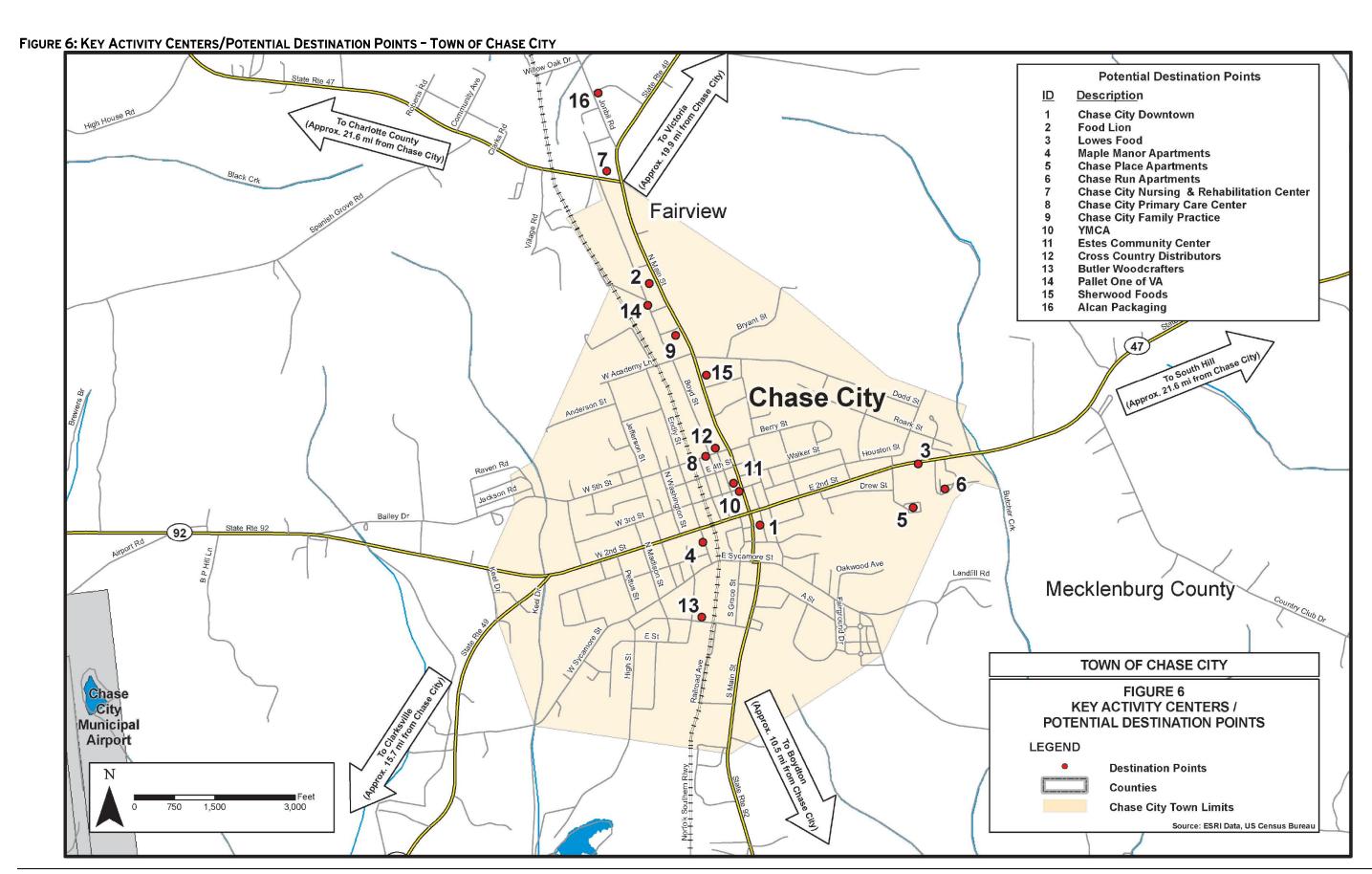
Major travel corridors include Main Street, which runs north-south through the Town of Chase City and 2<sup>nd</sup> Street, which runs east-west.

FIGURE 4: EXISTING LAND USE MAP - TOWN OF CHASE CITY









As **Table 1** shows the key activity centers and major destination points within the Town of Chase City that could potentially be served by public transportation.

TABLE 1: KEY ACTIVITY CENTERS/POTENTIAL DESTINATION POINTS IN THE TOWN OF CHASE CITY

ID	Destination Point	Туре	Potential Impact of Transit Service on Destination
1	Chase City Downtown	Various business	Promote business mainly in downtown area (i.e., restaurants, pharmacies, bank, retail stores, etc.)
2	Food Lion	Retail Store	Provide accessibility to the only grocery stores in
3	Lowes Food	Retail Store	Town.
4	Maple Manor Apartments	Housing	Improve mobility and independence for the
5	Chase Place Apartments	Housing	elderly and low/moderate income population,
6	Chase Run Apartments	Housing	many of whom do not have a private vehicle.
7	Chase City Nursing and Rehabilitation Center	Health	Improve accessibility for patients, the majority of whom are senior citizens.
8	Chase City Primary Care Center	Health	T
9	Chase City Family Practice	Health	Improve accessibility of patients.
10	YMCA	Entertainment	Provide access to major activity and education
11	Estes Community Center (SVCC)	Education	centers.
12	Cross Country Distributors	Employment	
13	Butler Woodcrafters	Employment	
14	Pallet One of VA	Employment	Improve access to work options especially for residents with no auto availability.
15	Sherwood Food	Employment	residents with no auto availability.
16	Alcan Packaging	Employment	

#### 2. DEMOGRAPHICS ANALYSIS

**Figure 7** shows population density in the Town of Chase City based on Census 2000 data. The number of households in 2000 in Mecklenburg County was 30,628.

The average population density in 2000 was 1,121 persons per square mile. As can be seen from the figure, the most populated areas are located on the west and east sides of Main Street, especially south of  $2^{nd}$  Street, where apartment dwellings are located.

**Figure 8** shows the distribution of the elderly population located in Town. As can be seen from the figure, the elderly population is spread out throughout Town, with some concentration along Main Street.

Approximately 36% of the Town's population is disabled, according to Census 2000<sup>3</sup>. **Figure 9** shows the location of people aged 21 to 64 years old with disabilities. As shown, disabled populations are mostly concentrated to the east of Main Street.

The median household income in the Town is \$22,193, and the median family income is \$32,700. Approximately 16% of families and 23% of the population overall are below the poverty line as defined by US Census (2000).

**Table 2** shows demographic data related to both the Town of Chase City and, for comparison, Mecklenburg County.

TABLE 2: DEMOGRAPHIC DATA MECKLENBURG COUNTY AND TOWN OF CHASE CITY

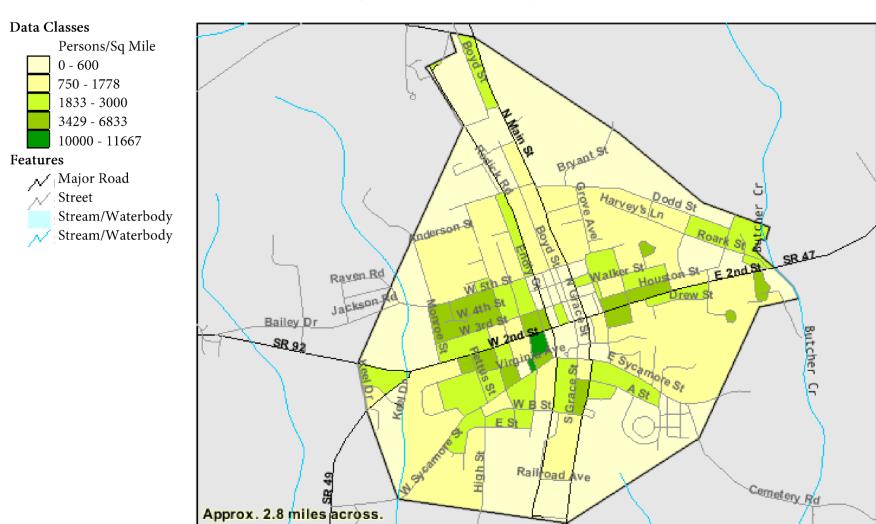
Demographic	MECKLENBURG COUNTY(*)	TOWN OF CHASE CITY(*)
Household population	12,901	2,427
Percentage of population w/o car (**)	12.0	13.4
Area (Sq Miles)	679	2.2
Population	32,380	2,457
Population Density (person/Sq Mile)	52.0	1,121.0
Median Age	41	40
Percentage of population over 65 years old	5,764 (17.8%)	536 (21.8%)
Percentage disabled	7,670 (26.3%)	837 (36.4%)
Median household income (\$)	31,380	22,193
Median family income (\$)	37,752	32,700
Population (percentage) below poverty line	4,785 (15.5%)	557 (22.7%)

<sup>(\*)</sup> Source: US Census Bureau. Census 2000

<sup>(\*\*)</sup> Source: Town of Chase City Comprehensive Plan - April 1998

<sup>&</sup>lt;sup>3</sup> Census 2000 defined disabled persons as having any of the following impediments: sight, hearing, physical, mental, emotional, or self-care disabilities.

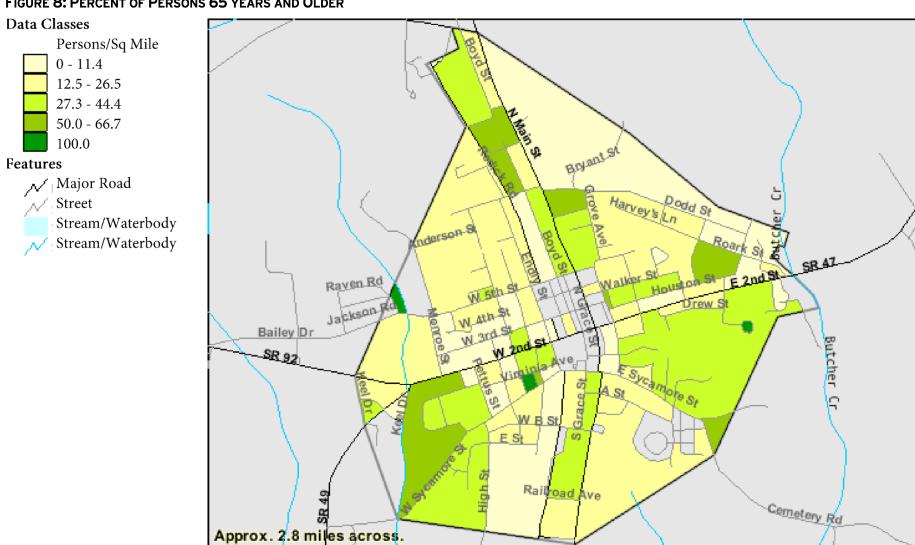
FIGURE 7: POPULATION DENSITY IN TOWN OF CHASE CITY (PERSONS PER SQUARE MILE)



Source: U.S. Census Bureau. Census 2000 Summary File 1, Matrix P1

Note: The data classes are not consecutive numbers. Population densities that fall between categories do not exist within the Chase City area shown above.

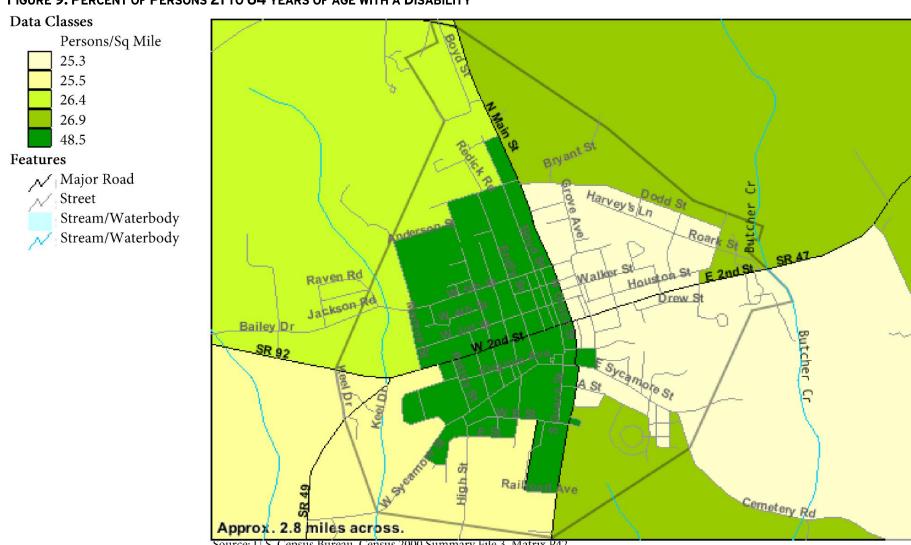
FIGURE 8: PERCENT OF PERSONS 65 YEARS AND OLDER



Source: U.S. Census Bureau. Census 2000 Summary File 1, Matrices P1 and P30

Note: The data classes are not consecutive numbers. Percentage of persons 65 years or older that fall between categories do not exist within the Chase City area shown above.

FIGURE 9: PERCENT OF PERSONS 21 TO 64 YEARS OF AGE WITH A DISABILITY



Source: U.S. Census Bureau. Census 2000 Summary File 3, Matrix P42

Note: The data classes are shown for the areas as denoted above.

#### 3. LOCAL STAKEHOLDER INPUT

Interviews and telephone conversations were conducted with local stakeholders including the Town of Chase City Chamber of Commerce (CCCC), the Nursing and Rehabilitation Center, the YMCA, and the Estes Community Center. Input from these stakeholders is summarized below.

#### A. Need for Public Transportation

The need/desire for public transportation was expressed by various stakeholders. Specifics regarding the type of public transportation needed/desired were not articulated, but it was stated that the elderly and disabled populations should be served with the predominance of need being to/from medical appointments. Another potential user would be members of the YMCA (280 members currently ranging in age from 3 to 94 years of age). Senior members account for approximately 12% of the total members with the majority of all members utilizing private automobiles to access YMCA facilities. One CCCC representative estimated that between 20 and 25 persons per day (500 persons/month) would use transit on a regular basis.<sup>4</sup>

#### B. Employment

Major employers in the Town of Chase City include Alcon Packaging, Pallet One, Butler Woodcrafter, Cross County Distributors, Chase City Nursing and Rehabilitation Center, and Sherwood Foods. Due to the recent closure of factories in the area, the unemployment rate in the Town of Chase City has risen compared to previous years. Currently the CCCC has 115 members; 40 to 45 of them are located downtown.

#### C. Use of Private Automobile

Currently most commuters use private vehicles since there are no alternative transportation options. Parking and congestion issues are rare to non-existent within the Town.

#### D. Residential Facilities with Transit Potential

Maple Manor Apartments, located on Endly Street ½-mile from downtown, provide low-income housing for elderly residents, and most residents do not own a vehicle.

#### E. Estes Community Center Classes

The Estes Community Center provides classes between 8:30 am to 10:00 pm with the majority of classes held Mondays through Thursdays from 6-9 pm Enrollment of students is approximately 300 of which 70-75% reside within the Town and commute to the Community Center by private vehicle. The age range of students is 18-70 years old, with the majority between 30 and 50 years old. The Community Center believes that public transportation would enhance the opportunities of students.

<sup>&</sup>lt;sup>4</sup> Although benefits described would include the ability of people to use public transportation to get to work, this benefit was not expressly stated by the stakeholders.

#### D. Assessment of Transportation Potential and Unmet Needs

Key transit needs identified for the Town of Chase City based on the above assessment are the following:

#### Seniors/Disabled

- With additional transportation options, seniors/disabled can better utilize the YMCA facilities and services.
- With a third of its population elderly or disabled, the Town of Chase City would benefit from public transportation which broadens access to transportation options for medical appointments, shopping trips, and generally provides greater independent mobility.

#### Commuters

- With approximately 16% of families below the poverty level, and given the current instability of gasoline prices, public transportation would benefit people with low-income households in the Town of Chase City.
- Currently most employees in the area use private vehicles due to the lack of alternatives. Citizens could benefit from a transit service in the area.

#### Students

• Improving access to the Estes Community Center will promote access to education and employment.

#### Other Citizens

- The Town of Chase City is engaged in a process of revitalizing its retail core. This process would be supported by public transportation options, which will improve access and attractiveness of the downtown area.
- There is a need for public transportation in the Town, especially for low to moderate income households that do not have access to private vehicles.

### **EVALUATION OF TRANSPORTATION PROVIDERS**

Below is information regarding the evaluation of existing public transportation options provided in and around the Town of Chase City.

#### A. Current Providers and Services

Currently, the Town of Chase City has no public transportation service. However, the Lake Country Area Agency on Aging (LCAAA) coordinates and manages demand responsive services for the elderly<sup>5</sup> for other areas in the County. This analysis focuses on LCAAA's service and its potential to serve the Town of Chase City if a demand responsive service is selected. An alternative deviated fixed-route service would likely be operated by the Blackstone Area Bus System (BABS).

The Southside (Planning District Commission 13) Coordinated Human Service Mobility (CHSM) Plan<sup>6</sup> provides a high level summary of transportation services and resources available in Chase City's region. Below is an accounting of agencies and their resources originally identified in the Southside CHSM Plan and modified to provide the most up to date information (where available) as well as to include the Blackstone Area Bus System (BABS) which serves the neighboring counties to the north.

<u>Lake Country Area Agency on Aging (LCAAA)</u> operates and maintains a demand responsive system between the hours of 8:00 am and 4:30 pm Monday through Friday (no holiday service provided). The fleet consists of:

- Approximately 35 LCAAA vehicles which include minivans, cars, body-on-chassis (BOC) vehicles (buses), and passenger vans. There are no fares for this service. Average ridership is 1,300 persons/month. LCAAA provides human service transportation.<sup>7</sup>
- Two LAB vehicles (1 used each day for general public, elderly, and disabled access with the other available for repairs/maintenance). Fares are \$1.50 each way. Average ridership is 21 persons/day or approximately 440 persons/month.
- Two HART vehicles (1 used each day with the other available for repairs/maintenance– allows for general public, elderly, and disabled access). Fares are \$1.50 each way. Average ridership is 24 persons/day or 500 persons/month.

It should be noted that both LAB and HART serve the general public while LCAAA serves the elderly and disabled populations exclusively. While there is currently no public transportation provided in Chase City, LCAAA would be open to operating a deviated-fixed route system with longer hours of operation than currently offered by LAB in other locations.

Blackstone Area Bus System (BABS) provides deviated fixed-route service to areas in and around Nottoway County (approximately 40 miles north of the Town of Chase City) for use by the general

<sup>&</sup>lt;sup>5</sup> LCAAA operates; (1) the Lake Area Bus System (LAB), which serves the towns of South Hill, La Crosse, and Brodnax and began service in 1997, (2) the Halifax Rural Transportation (HART), which began service in 2006; and (3) various other vehicles used to transport senior citizens to nutrition sites, medical appointments, service agencies, and recreational activities. It should be noted that LAB began as a deviated fixed route and switched to demand-responsive, service which resulted in an increase in ridership.

<sup>&</sup>lt;sup>6</sup> The Southside (PDC 13) Coordinated Human Service Mobility Plan (June 2008) was prepared for the counties of Brunswick, Halifax, and Mecklenburg.

<sup>&</sup>lt;sup>7</sup> Human service transportation provides transportation for specific groups within the overall population including elderly and/or disabled.

public. Additional information concerning the BABS system is provided in the Town of Blackstone/Fort Pickett area portion of this report. There is a possibility that BABS could operate a deviated fixed-route system in the Town of Chase City. This is described in the next section, Service and Organizational Alternatives.

<u>Southside Community Services Board (SCSB)</u> provides transport for their residents and day program participants with several 15-passenger vans. The service operates between 8:30 am and 5:00 pm. This is a human service transportation service.

Southside Training Employment and Placement Services (STEPS) provides work related trip service as well as tokens for clients to use the existing BABS. STEPS operates five vehicles, of which four are wheelchair accessible, on deviated fixed-routes Monday to Friday from 5 am – 9 am and 2 pm – 5 pm. Ridership averages approximately 1,500 person trips/month.

#### 1. MAGNITUDE AND EXTENT OF SERVICES

Currently there is no public transportation service provided to the Town of Chase City. During phone interviews conducted for this technical memo, LCAAA confirmed that LAB's services are demand-responsive and require users to call at least 24 hours in advance to request the service. However, requests made with 30 minutes of notice will be considered if a vehicle is available. Currently, these trips can only be made within LAB's service area: the corporate limits of the Towns of South Hill, La Crosse, and Brodnax. The service is curb-to-curb and there are no passenger age restrictions for LAB services. Other options serve the elderly and disabled populations only on a demand-responsive system(s) with 24-hour notice required. Table 3 summarizes the services organization providing transit service in the vicinity.

#### 2. EFFICIENCY, EFFECTIVENESS, COSTS AND RELIABILITY

According to Johnny Cleaton, Director of LAB, current demand is served effectively by the service's use of one vehicle (two vehicles are owned but one vehicle is held in reserve for maintenance or emergency replacement). At the onset of transit services, LAB provided a deviated fixed route and elicited low ridership. A switch to demand-responsive services increased ridership. In the timeframe between October 1, 2008 and September 30, 2009, a total of 21,377 miles were traveled by LAB (equating to approximately 90 miles/day) with a ridership of approximately 440 passengers/month. Operating costs are shown in **Table 4**.

<sup>&</sup>lt;sup>8</sup> STEPS provides services to those individuals utilizing Crossroads Community Services in the counties of Amelia, Buckingham, Charlotte, Cumberland, Lunenburg, Nottoway, and Prince Edward but not within the Chase City study area.

TABLE 3: REGIONAL TRANSPORTATION SERVICE PROVIDERS

Provider	Clients	Vehicles	Service Characteristics	Trips
Lake Country Area Agency on Aging (LCAAA)	General public, elderly, disabled	1 vehicle in operation each day for each system	Demand response service ; operates Mon-Fri 8:00 am– 4:30 pm	LAB: 5,000 annually HART: 6,000 annually LCAAA system: 15,600 annually
Blackstone Area Bus System (BABS)	General public	13 vehicles	Deviated fixed-route; Hours/days of operation vary for each route, most operate Mon – Fri 6 am–5 pm	30,000 annually
Southside Community Services Board (CSB)	Residents, day program participants	15 passenger vans	8:30 am–5:00 pm	No information provided
Southside Training Employment and Placement Services (STEPS)	Work-related trips Also provides tokens for clients to use on BABs and Crossroads Community Services	5 (4 are wheelchair accessible)	Deviated fixed-route;  Morning and afternoon service, Mon-Fri, 5–9 am, 2–5 pm	18,000 annually

Source: Commonwealth Regional Council (Planning District Commission 14) Coordinated Human Service Mobility (CHSM) Plan, Virginia DRPT, April 2008 and compiled by HNTB Corporation. BABS information provided by: Blackstone Area Bus System administration personnel.

TABLE 4: OPERATING COSTS AND FUNDING STRUCTURE OF LAKE AREA BUS (LAB) AND BLACKSTONE AREA BUS SYSTEM (BABS) – 5311 FY2010 BUDGET

	LCAAA		BABS <sup>9</sup>	
	LAB	HART	Blackstone	Brunswick
Total Operating Expenses	\$65,361	\$74,172	\$84,655	\$46,406
Farebox Revenue	\$7,851	\$8,520	\$6661 (8%)	\$1,629 (4%)
Deficit	\$57,510	65,652	\$77,994	\$44,777
Funding Sources				
Federal Aid (5311, ARRA, etc.)	\$28,755 (50%)	\$32,826 (50%)	\$38,998 (50%)	\$22,389 (50%)
State Aid	\$12,457 (22%)	\$12,197 (18%)	\$15,469 (20%)	\$9,594 (21%)
Local Share	\$16,298 (28%)	\$20,629 (31%)	\$23,529 (30%)	\$12,794 (29%)
Total funding	\$57,510	\$65,652	\$77,994	\$44,777

Source: Lake Country Are Agency on Aging, Blackstone Area Bus System, and DRPT 2009 funds

<sup>&</sup>lt;sup>9</sup> Operating costs for other routes within BABS is available.

#### 3. Funding

While LAB does not currently provide services to the Town of Chase City, expanded service could be provided if adequate funding were available. Funding options include federal, state, and local funds as well as potential funding from community and/or town resources. Current sources of operational funding for providers are set at: 50% federal, approximately 18% state, and approximately 32% local match. Capital funding split by source for providers is approximately 80% federal, 10% state, and 10% local. The remaining services provided under LCAAA receive funding through various programs but since they serve the elderly and disabled populations only, they cannot service the general public. Therefore, funding for other programs is not provided here.

#### 4. DUPLICATION OF SERVICES

There is currently no duplication of services. LCAAA/LAB and BABS are the only providers offering services outside of a specific program but neither currently serves the Town of Chase City. SCSB and STEPS services are designed for a limited population. It is possible, however that a program participant would have access to multiple transportation services.

#### B. Capacity for Future Expansion

Based on phone interviews and telephone conversations with representatives of the Town of Chase City and DRPT, LCAAA and BABS have been identified as potential future providers for public transportation for the Town of Chase City.

#### 1. COORDINATION AMONG PROVIDERS

Expansion of LCAAA's services to the Town of Chase City would require the type of coordination that LCAAA already engages in for its existing service areas – the Towns of South Hill, La Crosse and Brodnax (LAB services) and Halifax (HART services).

Similarly, BABS services (portions of) the counties of: Buckingham, Cumberland, Amelia, Dinwiddie, Prince Edward, Nottoway, Lunenburg, and Brunswick with a total of eight deviated-fixed routes currently. Expansion of the current services to the Town of Chase City is possible.

Depending on the route determined for the Town of Chase City, some individuals currently using the SCSB and STEPS systems may be able to use the new route providing additional options to the citizens of the Town of Chase City.

#### 2. CAPABILITY TO EXPAND SERVICES

LAB currently does not provide service in the Town of Chase City. However, LAB (or a similarly run system by LCAAA) or BABS could provide service in the Town of Chase City if adequate capital and operation funding were to be available. According to LAB and BABS, service to the Town of Chase City would require a minimum of one additional vehicle and at least one driver. It is likely the vehicle would be housed day to day somewhere in the Town to minimize travel costs. Regularly scheduled maintenance would need to occur at the respective agency facilities.

#### 3. ABILITY TO RECEIVE FEDERAL FUNDING

Whether the service is demand-responsive or deviated fixed-route, it is likely the Town would be eligible for federal funding. Grant applications would need to be filled out for both state and

federal funding. Both agencies (LCAAA and BABS) are providing public transportation in the area and have completed similar applications for their current services, are aware of the requirements, and are eligible to receive both federal and state funding.

### C. Local Provider Opinions and Possible Courses of Action

The Town of Chase City would benefit from public transportation to broaden transportation options and provide citizens access to medical appointments, shopping trips, employment, and generally provide greater independent mobility. In addition, public transportation would benefit Town of Chase City residents for some of whom gas prices have become a hardship.

### SERVICE AND ORGANIZATIONAL ALTERNATIVES

#### A. Service Goals

As stated under the Needs Assessment section of this report, the following three objectives have been identified:

- Increase transportation choices and improve mobility;
- Offer lower cost transportation options; and
- Stimulate economic development, especially in the downtown area of Chase City.

Because transit service is not currently provided in the Town, transit services should serve all the citizens of the Town with specific attention given to the elderly, the disabled, and those without private vehicles. The Town's transit should serve the entire area within the Town limits and extend to core employment and activity centers just north of the Town limits.

#### **B. Service Area**

This transit feasibility study is being developed to provide transit service in the Town of Chase City. Within the Town of Chase City, transit service concentrates on serving major destination centers, and major employment centers in and around the Town limits.

### C. Types of Service

Two types of transit service are being considered for the Town of Chase City in this study: deviated fixed-route and demand-responsive service. All service considered is bus service.

#### 1. DEVIATED FIXED-ROUTE SERVICE

Deviated fixed-route service operates along designated routes with specific stops according to a fixed schedule ("fixed-route service")<sup>10</sup>, but has the additional flexibility to go off route, or deviate from the established route, to provide pick-ups and drop-offs. If there are no requests for deviation, the service operates as a traditional fixed-route scheduled service.

Requests for deviations can be handled in several ways. For pick-ups located off the fixed-route, riders contact the transit agency in advance with their pick-up request. For drop-offs located off the route, riders may call the transit office in advance or ask the driver upon boarding. If the request is made on-board, depending upon other requests, this request may not be honored. Deviated fixed-route service is particularly appropriate to rural areas. Deviations are made up to  $\frac{3}{2}$ -mile off the fixed-route alignment.

Fixed-route service operates along designated routes with specific stops according to a fixed schedule. Fixed route service is offered primarily in (small) urban areas in Virginia. Examples of fixed route bus service would be the transit services provided by Greater Lynchburg Transit Company, Danville Transit System, and Valley Metro in Roanoke

#### 2. DEMAND-RESPONSIVE SERVICE

Demand-responsive service is entirely based on requests by individual passengers, providing service from one location to another. Service is curb-to-curb, where the passenger is picked up and dropped off in front of their house. As with deviated fixed-route service, demand-responsive service is appropriate for rural areas or places with a significant elderly and/or disabled population. Requests for service are normally made 24-hours in advance of the trip so that a driver manifest can be created for each day.

#### D. Service Frequency and Duration

A wide range of service frequencies are possible with deviated fixed-route service. Service frequency refers to how often a bus passes along a fixed-route. In rural applications, a service frequency of one bus per hour is typical. If passenger demand is lower, service frequencies can be reduced to a few trips per day. Service frequency is not applicable to demand-responsive service, as trips are made upon passenger request.

Service duration is applicable to all service types. Service duration refers to the days of the week and hours of the day that public transportation service is offered. For rural areas, service duration is often Monday through Friday during the day (9 am to 5 pm, for example).

The alternatives presented in this study will offer different variations of service area, frequency, and duration. Route alternatives are conceptual and should be adjusted as part of the implementation of this study and its recommendations.

#### E. Transit Service Alternatives

Three alternatives (with one alternative having two options), based on the identified transportation needs and the characteristics of the Town of Chase City, are proposed for further consideration. All proposed alternatives cover the majority of the activity centers/potential destination points of the Town. Activity centers/potential destination points served without the need of route deviations are listed below.

- Downtown Town of Chase City
- Food Lion
- Lowes Food
- Maple Manor Apartments
- Chase Place Apartments
- Chase Run Apartments
- Chase City Nursing and Rehabilitation Center
- Chase City Primary Care Center

- Chase City Family Practice
- YMCA
- Estes Community Center
- Cross Country Distributors
- Butler Woodcrafters
- Pallet One of VA
- Sherwood Food
- Alcan Packaging

## 1. ALTERNATIVE 1 – DEVIATED FIXED-ROUTE (SERVICE FREQUENCY: 60 MINUTES, SERVICE DURATION: 7:30 AM-5:00 PM) – TOWN OF CHASE CITY

Alternative 1 for the Town of Chase City (shown in Figure 10) is approximately 8.3 miles in length, with a round trip taking approximately one hour, assuming an operating speed of 15

miles per hour. Approximate headway between runs would be 60 minutes, using one vehicle, from 7:30 am to 5:00 pm weekdays only.

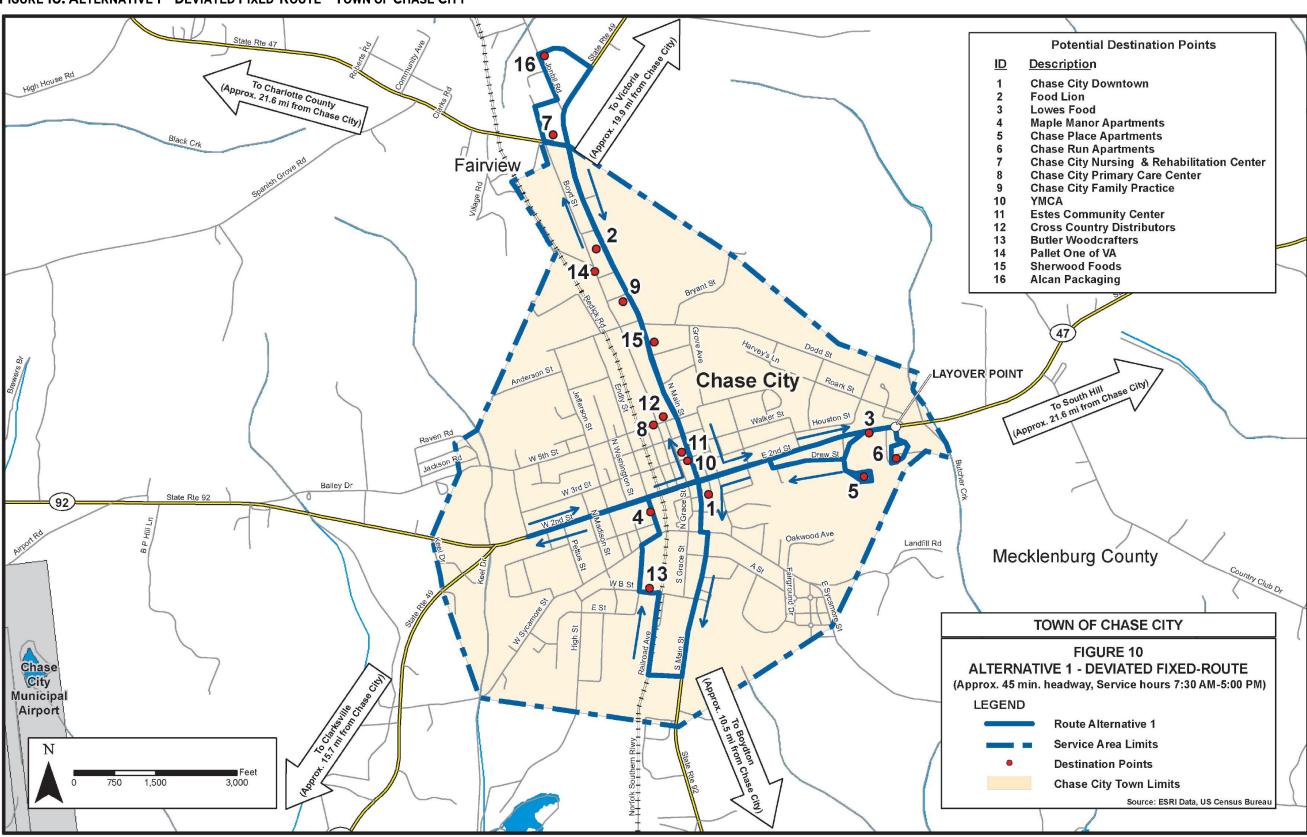
Alternative 1's proposed route would begin at the Lowes Food site located on E 2nd Street. The Lowes Food parking lot would provide a location for vehicle layover between trips. From Lowes Food, the bus would then serve areas located on the east side of the Town, including high density residential areas such as Chase Place Apartments and Chase Run Apartments. The bus would then travel towards downtown to serve the businesses located south of E 2nd Street, continuing south to Railroad Avenue, then west to serve the residential areas located east of Main Street such as Maple Manor Apartments located on Endly Street. The bus then would proceed further west to Monroe Street and then return to Main Street. The bus would then travel north on Main Street serving the downtown businesses located north of E 2nd Street to State Route 720. Key activity centers served in this area are Chase City Nursing and Rehabilitation Center, Alcan Packaging, and other employment centers. The bus would then return to serve Main Street to E 2nd Street, returning to the departure point at Lowes Food by traveling east along E 2nd Street. The entirety of Alternative 1's route is depicted in Figure 10.

Alternative 1 service would allow deviations up to approximately ¾ mile from the proposed fixed-route. Deviations would be available for qualified riders who are ADA-certified. The route deviations would allow the service area to cover the entire area within the Town limits with an extension to the Alcan Packaging site north of the northern Town limits. The trip time without deviations is of sufficient length to allow deviations to occur while maintaining the hourly service frequency. **Table 5** shows the advantages and disadvantages of this alternative.

TABLE 5: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE 1 – TOWN OF CHASE CITY

Advantages	Disadvantages	
General	General	
Fixed schedules may encourage people to use public transportation as riders can anticipate bus arrivals/departures at fixed-route stops.	Service area is limited to the Town limits with the extension to the Alcan Packaging site north of the northern Town limits.	
Bus stops placed near activity centers.	Riders may be hesitant to take transit because schedules and routing may be perceived as fixed.	
The option of allowing deviation of the fixed- route will increase ridership and patronage among elderly and disabled populations.	The Town of Chase City is classified with low population and employment densities, which can result in difficulties related to fixed-route service.	
Financial advantages include controlling costs by setting the number of hours provided and standardizing routes run. Economic goals of the Town are supported with a deviated fixed-route.		
Fosters rider independence, allowing passengers to utilize route schedules that fit changing needs.		
Specific		
The relatively short route length (8.3 miles) allows for frequent and reliable service.		
Service connects residential areas with employment centers, retail stores, and health service centers		

FIGURE 10: ALTERNATIVE 1 - DEVIATED FIXED-ROUTE - TOWN OF CHASE CITY



# 2. ALTERNATIVE 2A – DEVIATED FIXED-ROUTE (SERVICE FREQUENCY: 45 MINUTES, SERVICE DURATION: 7:30 AM-5:00 PM) – TOWN OF CHASE CITY

Alternative 2A for the Town of Chase City (shown in **Figure 11A**) is approximately 8.3 miles in length, with a round trip taking about 45 minutes, assuming an operating speed of 15 miles per hour. Approximate headway between runs would be 45 minutes, using one vehicle, from 7:30 am to 5:00 pm weekdays only.

Alternative 2A's proposed route would begin at the Lowes Food site located on E 2<sup>nd</sup> Street. The Lowes Food parking lot would provide a location for vehicle layover between trips. From Lowes Food, the bus would then serve areas located on the east side of the Town, including high density residential areas such as Chase Place Apartments and Chase Run Apartments. The bus would then travel towards downtown to serve the businesses located south of E 2<sup>nd</sup> Street, continuing south to Railroad Avenue, then west to serve the residential areas located east of Main Street such as Maple Manor Apartments located on Endly Street. The bus then would proceed further west to serve the outskirts of the Town, then travel north to State Route 720. Key activity centers served in this area are Chase City Nursing and Rehabilitation Center, Alcan Packaging, and other employment centers. The bus would then return on Main Street to serve the businesses located north of Walker Street, returning to the departure point at Lowes Food by traveling east along Walker Street. The entirety of Alternative 2A's route is depicted in Figure 11A.

Alternative 2A service would allow deviations up to approximately ¾ mile from the proposed fixed-route. Deviations would be available for qualified riders who are ADA-certified. The route deviations would allow the service area to cover the entire area within the Town limits with an extension to the Alcan Packaging site north of the northern Town limits. The trip time without deviations is of sufficient length to allow deviations to occur while maintaining the hourly service frequency. Similar service can be provided in a "figure 8" configuration, as described below and shown in Figure 11B. Table 6 shows the advantages and disadvantages of alternatives 2A and 2B.

# 3. ALTERNATIVE 2B – DEVIATED FIXED-ROUTE, "FIGURE 8" (SERVICE FREQUENCY: 60 MINUTES, SERVICE DURATION: 7:30 AM-5:00 PM) – TOWN OF CHASE CITY

**Figure 11B** depicts Alternative 2B for the Town of Chase City. As can be seen, the proposed route consists of two loops, running in a "*figure 8*" configuration, with a total approximate length of 10.2 miles. The first loop would connect the downtown area with the area along and west of Main Street; the second loop would connect the downtown area with the area along and east of Main Street. Service would be provided hourly using one vehicle, from 8 am to 5 pm weekdays, and service Main Street on a 30-minute interval.

Alternative 2B's first loop (approximately 6.0 miles) would begin at the CVS site located at the intersection of Main Street/5<sup>th</sup> Street. The CVS parking lot (or street frontage) would provide a location for vehicle layover between trips. From CVS, the bus would travel south to serve businesses located south of 5<sup>th</sup> Street to Railroad Avenue, turn west to serve residential areas, such as Maple Manor Apartments, then travel north towards key activity centers, such as the Nursing and Rehabilitation Center, Alcan Packaging, and other employment centers. To complete the first loop, the bus then would travel south along Main Street serving the downtown continuing south returning to the departure point at CVS.

The second loop (approximately 4.2 miles) would then begin at the CVS site located at the intersection of Main Street/5<sup>th</sup> Street. The bus would travel south to A Street, then continue east to serve key activity centers located on the eastern side of the Town, such as Chase Place Apartments, Chase Run Apartments, and Lowes Food. After serving these locations, the bus would return to Main Street via Dodd Street to the departure point and restart the first loop. The entirety of Alternative 2B's route is depicted in Figure 11B.

Alternative 2B would allow deviations up to approximately ¾ mile from the proposed fixed-route. Deviations would be available for qualified riders who are ADA-certified. The route deviations would allow the service area to cover the entire Town. The trip time without deviations is of sufficient length to allow deviations to occur while maintaining the hourly service frequency. Table 6 shows the advantages and disadvantages of Alternatives 2A and 2B.

TABLE 6: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE 2A AND 2B - TOWN OF CHASE CITY

Advantages	Disadvantages		
General	General		
Fixed schedules may encourage people to use public transportation as riders can anticipate bus arrivals/departures of fixed-route stops.	Service area is limited to the Town limits with the extension to the Alcan Packaging site north of the northern Town limits.		
Bus stops placed near activity centers.	Riders may be hesitant to take transit because schedules and routing may be perceived as fixed.		
The option of allowing deviation of the fixed- route will increase ridership and patronage among elderly and the disabled.	The Town of Chase City is classified with low population and employment densities, which can result in difficulties related to fixed-route service.		
Financial advantages include controlling costs by setting the number of hours provided and standardizing routes run. Economic goals of the Town are supported with a deviated fixed-route.			
Fosters rider independence, allowing passengers to utilize route schedules that fit changing needs			
Specific	Specific		
The service connects residential areas located in the west and east side of the Town with Main Street and other major activity centers.	Looped routes can result in long return trips for short outbound trips and vice versa.		

FIGURE 11A: ALTERNATIVE 2A- DEVIATED FIXED-ROUTE- TOWN OF CHASE CITY

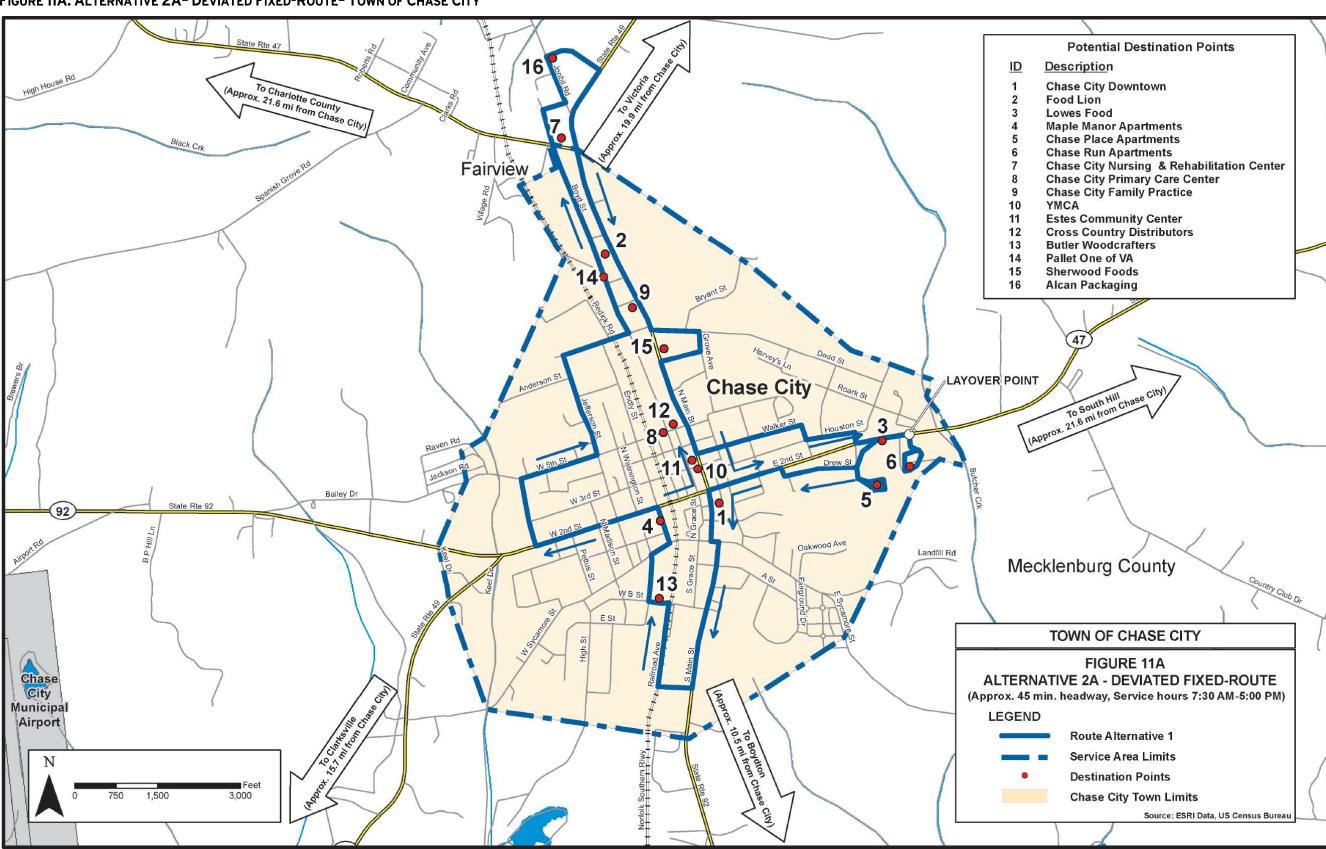
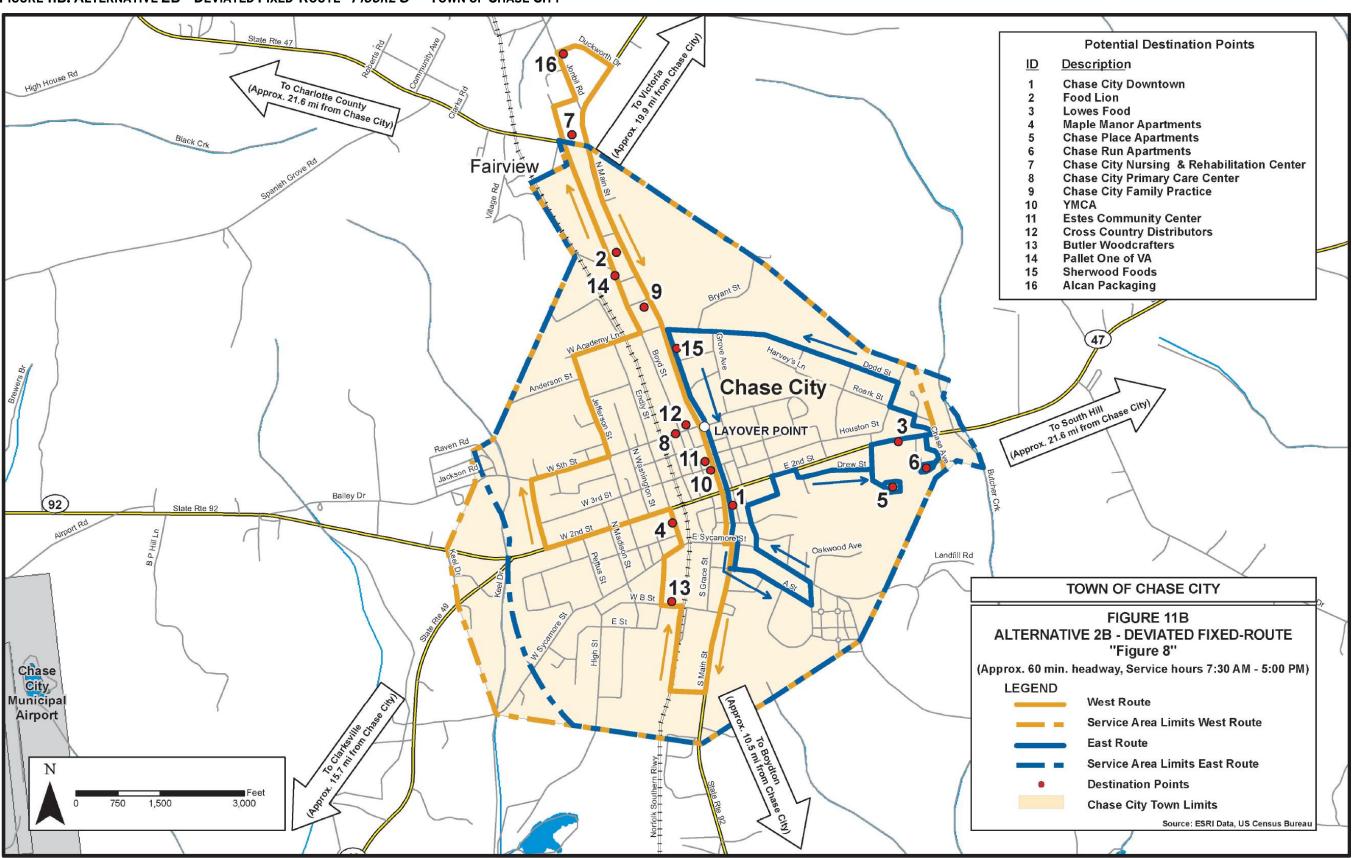


FIGURE 11B: ALTERNATIVE 2B - DEVIATED FIXED-ROUTE "FIGURE 8" - TOWN OF CHASE CITY



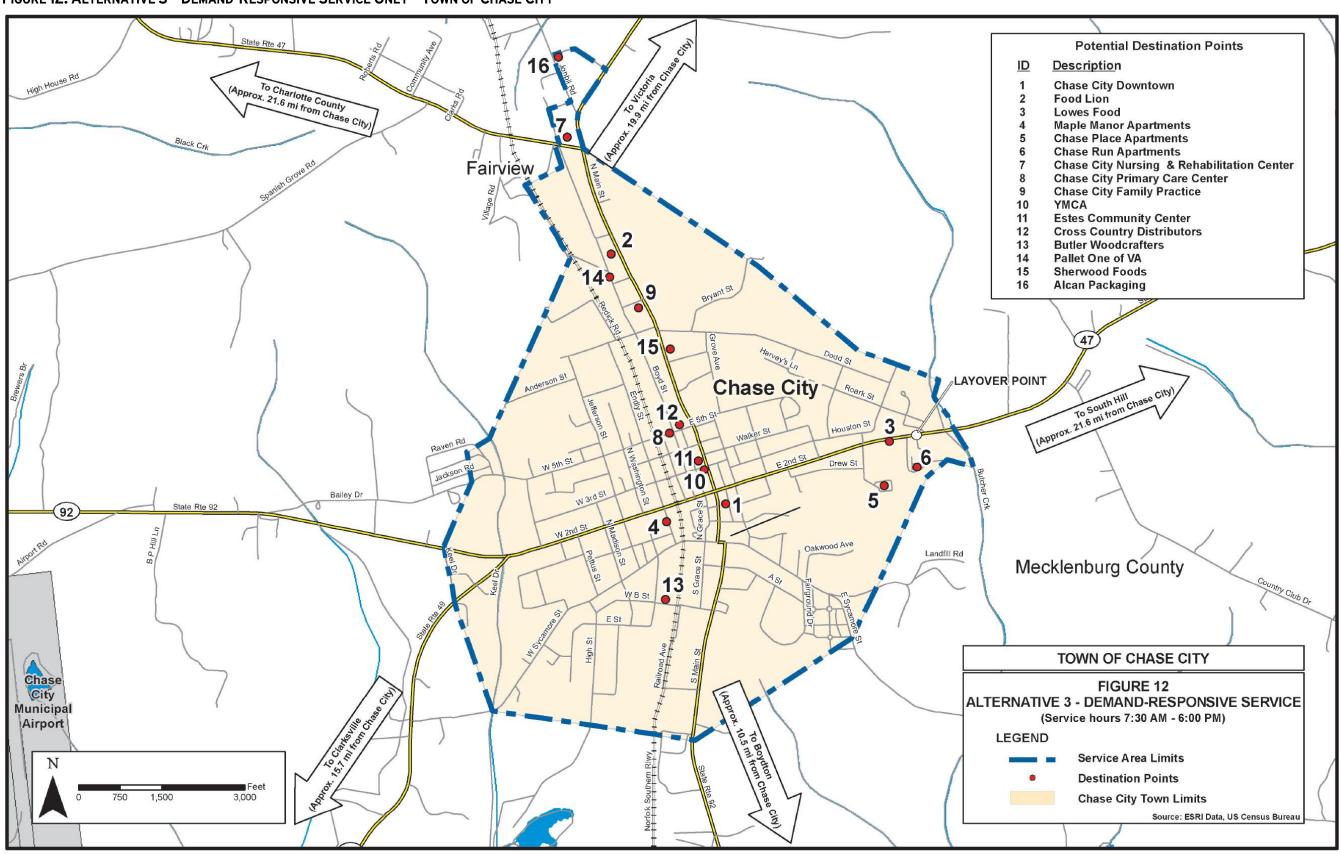
## 4. ALTERNATIVE 3 – DEMAND-RESPONSIVE SERVICE ONLY (SERVICE FREQUENCY: N/A, SERVICE DURATION: 7:30 AM-6:00 PM) – TOWN OF CHASE CITY

Figure 12 depicts Alternative 3's coverage area for demand-responsive service in the Town of Chase City. This option provides service within the Town's limits with an extension to the Alcan Packaging site north of the northern limits of the Town. Pick-up and drop-off locations and times would be scheduled by phone or on-line, typically one day in advance. The public transportation service would be in operation on weekdays for 10.5 hours a day, from 7:30 am – 6:00 pm. Hours of operation for the demand-responsive alternative differ from those shown with the deviated fixed-route alternatives to provide service hour alternatives which ultimately affect costs of operation as well as to allow for transport from work to place of residence with one additional stop along the way. Table 7 shows the advantages and disadvantages of this alternative.

TABLE 7: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE 3 – TOWN OF CHASE CITY

Advantages	Disadvantages
General	General
Demand-responsive service is often less expensive to operate overall, compared to a deviated fixed-route service with very low ridership. While vehicle, driver, and administration costs might be constant/similar for deviated fixed-route and demand-responsive service, the costs of other items (i.e., gas, vehicle maintenance) increase as the number of miles driven or hours of use of the vehicle increase.	Fares are higher for demand-responsive service than for deviated fixed-route service.
Riders can set their own schedules for travel, as compared to deviated fixed-route service, which comes only at prescribed times. Flexibility is limited by availability of vehicles and vehicle schedules.	Riders would need to schedule travel in advance.
Curb-to-curb service is more accessible.	Demand-responsive service may be perceived as exclusively for the elderly and disabled rather than the population at large, compared to deviated fixed-route service.
Demand-responsive service may be more appropriate for the lower population and density of the Town of Chase City.	Fosters rider dependence on the service, creating an obligation to ride if making a reservation up to 24 hours in advance, without the freedom to make other choices as the trip approaches, as is possible with deviated fixed-route services.
	Bus rarely, if ever, operates at capacity.
	Costs are dependent on the number of requested rides and cannot be controlled.
	Requires a dispatcher.

FIGURE 12: ALTERNATIVE 3 - DEMAND-RESPONSIVE SERVICE ONLY - TOWN OF CHASE CITY



## F. Organizational Structure

This section examines the organizational requirements for implementing public transportation service in the Town of Chase City.

#### 1. Institutional Structure

Currently, the Town of Chase City has no public transportation service. It is recommended that the Town contract with an external transit service provider. Two potential service providers were identified.

- Blackstone Area Bus System (BABS) operates buses on a deviated fixed-route schedule. BABS began operation in 2003 serving the Town of Blackstone. Service has since expanded to eight counties in south central Virginia. BABS service reaches the towns of Kenbridge, Victoria, Lunenburg Courthouse, Burkeville, Crewe, Brunswick, Dinwiddie, and their surrounding areas. BABS service currently operates eight routes.
- Lake Country Area Agency on Aging (LCAAA) operates the Lake Area Bus System (LAB). LAB provides demand-responsive service for the towns of South Hill, La Crosse, and Brodnax since 1997. It should be noted that LAB began as a deviated fixed-route and switched to demand-responsive service, which resulted in increased ridership of the system.

An external transit service provider arrangement would cost less in operating costs than running a system in-house and would enable Chase City to take advantage of the organization and institutional experience that BABS and LAB have. It would also relieve Chase City staff from managing human resources issues, regulatory compliance, and vehicle maintenance associated with providing transit services. Both BABS and LAB currently provide similar services in the area resulting in potential efficiency of resources resulting in minimal start-up costs and lower operational and maintenance costs. BABS or LAB could also provide support to the Town through the grant application process.

Representatives of BABS and LAB were interviewed for this feasibility study to assess the viability of each in relation to the needs of the Town of Chase City. Each organization is capable of, and legally permitted to, provide transportation services, and representatives expressed interest in continuing to explore opportunities including providing service to the Town. These organizations, or a similar organization, could offer turnkey operations handling grant applications, regulatory requirements, heavy maintenance, human resources, and bookkeeping. The transit vehicle may be warehoused locally at the Public Works Department in the Town of Chase City, although maintenance and repairs would occur at the respective agency's maintenance shop. Bus drivers could be local, would be employees of the service provider (BABS, LAB, or similar), and would be responsible for the Chase City route.

#### 2. OPERATIONS STAFFING

If BABS, LAB, or a similar service provider operate the proposed transit service, the following staffing is required.

• Vehicle operators – A minimum of three part-time drivers would be needed. Vehicle operators are required to have a Commercial Driver's License (CDL) with Passenger Endorsement (Class P).

- Administrative It is assumed that administrative duties would be performed within the existing framework of existing personnel at the selected transit service provider. It should be noted with demand-responsive service an additional dispatcher may be required based on demand.
- Maintenance The service provider would be responsible for providing vehicle maintenance. Heavy maintenance would be performed at the transit provider's own facility (or at a third-party facility of the respective agency choosing). Preventive and light maintenance could be performed either by the transit provider or locally by the Public Works Department, but this is a decision that would be made by the respective agency. Costs incurred by the Town in providing maintenance would be billed to the transit provider.

Since the transit service is proposed to be operated by a transit provider, the Town's staffing requirements would be greatly reduced. The turnkey system of providing transit service allows the Town to be responsible for disbursing payments to the contracted operator (BABS, LAB, or similar provider). This function could be performed by existing staff. The provider's fees cover costs only; the provider does not earn a profit on services provided.

## G. Costs and Funding Sources

#### 1. CAPITAL COSTS

As many as two vehicles would be needed to operate any of the three service alternatives under consideration. One vehicle would be the primary and the second a spare vehicle used during regular or emergency maintenance or repair situations. The service could operate without the second vehicle; however, there would be the risk that service could be cancelled if the primary vehicle required unplanned maintenance or repair. A small body-on-chassis vehicle would be suitable to meet the anticipated demand in these events. Vehicles of this type are fully capable of loading and transporting passengers who use wheelchairs.

Vehicles would be owned and operated by the transit provider. Cost of operations would be paid by Town of Chase City to the transit provider, as negotiated. In case of vehicle malfunction, the transit provider would be required to provide a replacement.

DRPT transit service guidelines estimate the cost for a body-on-chassis vehicle in the range of \$40,000 to \$50,000. For capital cost estimation a value of \$50,000 was used. The anticipated capital cost estimate is shown in **Table 8** below.

TABLE 8: ANTICIPATED CAPITAL COST ESTIMATE AND FUNDING CONTRIBUTIONS- TOWN OF CHASE CITY

	Capital Costs	Anticipated Funding Contributions					
Transit Service Alternative	Vehicle	Federal (80%)	State (10%)	Local (10%)			
THICHHULIVE	Venicie	(0070)	(1070)	(1070)			
Alternative 1	\$100,000	\$80,000	\$10,000	\$10,000			
Alternative 2	\$100,000	\$80,000	\$10,000	\$10,000			
Alternative 3	\$100,000	\$80,000	\$10,000	\$10,000			

#### 2. OPERATING COSTS

Operating costs include labor, maintenance, consumable supplies (such as fuel and tires), and administration. Operating costs per year for deviated fixed-route systems are based on the *BABS Transit Development Plan (TDP – 2009)*. For the deviated fixed-route system, average operation costs were calculated at an average of \$2.20 per mile and \$35.00 per hour. Operating costs per year for Demand-Responsive Systems are based on calculations utilizing the capital costs of the system and the hours in operation. Average operation costs for demand-responsive systems were calculated at \$2.00 per mile and \$35.00 per hour. It was found that the per vehicle-revenue-hour basis was a more conservative approach for the three alternative services and shown in Table 9.

Operating costs are balanced by farebox return as well as local, state, and federal funding support for operations. Farebox return has been estimated using a fare of \$0.50 one-way for the deviated fixed-route options and a fare of \$1.50 one-way for the demand-responsive alternative. Monthly ridership (400 persons/month) has been estimated based on ridership achieved in similar systems<sup>13</sup>, including BABS in the first year of operation. It should be noted that farebox return covers only a small portion of operating costs. Therefore, inaccuracies in ridership estimation have little effect on the estimate of needed operations funding support.

It should also be noted that evaluations based on estimated farebox revenue alone discount the social benefits of growing transit service such as providing mobility. Using public transportation to travel where one wants to go, at times relatively convenient to one's schedule becomes an essential part of the community's transportation system.

The anticipated annual operating cost estimate is shown in **Table 9** below.

TABLE 9: ANTICIPATED ANNUAL OPERATING COST ESTIMATE AND FUNDING CONTRIBUTIONS – TOWN OF CHASE CITY

Transit	Hours in	Annual	Cost	Annual	Estimated		Anticipated Funding Contributions		v
Service Alternative	Operation per day	Revenue Hours	per Hour	Operating Cost	Farebox Revenue <sup>1</sup>	Operating Deficit	Federal (50%)	State (18%)	Local (32%)
Alternative 1	9.5	2,470	\$35	\$86,450	\$2,400	\$84,050	\$42,025	\$15,129	\$26,896
Alternative 2	9.5	2,470	\$35	\$86,450	\$2,400	\$84,050	\$42,025	\$15,129	\$26,896
Alternative 3	10.5	2,730	\$35	\$95,550	\$7,200	\$88,350	\$44,175	\$15,903	\$28,272

Notes:

<sup>1</sup> Calculated using a \$0.50 per trip fare for deviated fixed-route options (Alternatives 1 and 2) and \$1.50 per trip for demand-responsive (Alternative 3). A projected ridership of 400 passengers per month (see footnote) is used in estimating annual farebox revenue.

<sup>&</sup>lt;sup>11</sup> BABS data is intended to be representative of what costs might be for similar transit service, regardless of specific service provider chosen.

LCAAA estimates their demand responsive service operating costs at \$28/hour. With the multitude of services provided by LCAAA, it is likely some of the demand-responsive administration and operation costs are shared between LCAAA services. If a demand-responsive service were to be started for Chase City, it is anticipated the operating costs would be more in line with \$35/hour taking into account start-up and administration costs, gas and other consumables

<sup>&</sup>lt;sup>13</sup> Estimate is based on ridership on Dinwiddie BABS route, which serves a large area in and around Dinwiddie. Ridership just recently (late 2009) reached this level after one year of service. Dinwiddie is a larger system than proposed for the Town of Chase City. The number used here is to represent a best-case scenario.

#### 3. FUNDING SOURCES

It is assumed funding for these alternatives would be provided by FTA Section 5311 (rural areas). Information on other options is provided below.

The application deadline for requesting capital and operating support is February 1, 2010 for FY2011 (October 1, 2010 – September 30, 2011). The federal component of the funds would be available (at the earliest) on October 1, 2010 for FY2011.

Based on BABS and LAB information, transit systems have a good level of government support, but finances are constrained. Sources of these funds are shown in Table 10.

TABLE 10: BLACKSTONE/CREWE AND LAB OPERATION AND MAINTENANCE BUDGET, SOURCE FUNDS

	Blackstone &	Crewe Routes	LAB		
		Percentage of		Percentage of	
Source	Amount (\$)	Total Funds <sup>1</sup>	Amount (\$)	Total Funds <sup>2</sup>	
Federal Funds	\$59,996	50%	\$28,755	50%	
State Funds	\$23,797	20%	\$12,457	22%	
Local Government Funds	\$36,198	30%	\$16,298	28%	

Source: BABS and LCAAA administration personnel.

Some capital costs are also funded by a combination of federal, state, and local funds. Eligible capital expenses include the cost of associated capital equipment such as mobile radios, fareboxes, bus shelters, and bus stop signing. Funding support for these types of capital costs is typically distributed as follows:

• Federal: 80 percent

• State: approximately 10 percent

• Local: approximately 10 percent

It should be noted that the state contribution can vary significantly from year to year.

**Table 11** compares the three service alternatives against one another using several evaluation criteria.

<sup>&</sup>lt;sup>1</sup> Percentage of total operation and maintenance funds for the Blackstone and Crewe Routes of BABS takes into account \$10,248 (8% of total budget, \$130,240) from the passenger fares and other revenue. These farebox and other revenue funds are deducted from the overall operating costs prior to calculating the federal/state/local percentages.

<sup>&</sup>lt;sup>2</sup> Percentage of total operation and maintenance funds for LAB takes into account \$7,851 (8% of total budget, \$65,361) from the passenger fares and other revenue. These farebox and other revenue funds are deducted from the overall operating costs prior to calculating the federal/state/local percentages.

TABLE 11: SERVICE ALTERNATIVES COMPARISON – TOWN OF CHASE CITY

Service	Evaluation Criteria								
Alternative	Cost <sup>1</sup>	Staffing Requirements	User Groups	Fare <sup>4</sup>	Ridership	Route Length <sup>5</sup>	Reliability	Headway	Operational Complexity
1. Deviated Fixed-Route	Operating Cost/Year <sup>2</sup> : \$87K Capital Cost/Vehicle <sup>3</sup> : \$100K	<ul> <li>Administrative staff</li> <li>Two vehicle operators, one as the primary and one as a backup</li> <li>Maintenance staff</li> </ul>	Town of Chase City citizens. Primarily elderly and disabled populations.	Lower, typically \$0.50 to \$1.00 (one-way)	Frequent service may encourage ridership.	Approximately 8.3 miles	Provide reliable service. However, route deviation can compromise reliability.	Recommended 60 minute headway.  Hours of operation from 7:30 am to 5:00 pm	The number of requests on route deviations may add complexity.
2. Deviated Fixed-Route, "Figure 8 configuration"	Operating Cost/Year <sup>2</sup> : \$87K Capital Cost/Vehicle <sup>3</sup> : \$100K	<ul> <li>Administrative staff</li> <li>Two vehicle operators, one as the primary and one as a backup</li> <li>Maintenance staff</li> </ul>	Town of Chase City citizens. Primarily elderly and disabled populations.	Lower, typically \$0.50 to \$1.00 (one-way)	Frequent service may encourage ridership.	Approximately 10.2 miles	Provide reliable service. However, route deviation can compromise reliability.	Recommended 60 minute headway.  Hours of operation from 7:30 am to 5:00 pm	The number of requests on route deviations may add complexity.
3. Demand- Responsive	Operating Cost/Year <sup>2</sup> : \$95K Capital Cost/Vehicle <sup>3</sup> : \$100K	<ul> <li>Administrative staff, including a dispatcher</li> <li>Two vehicle operators, one as the primary and one as a backup</li> <li>Maintenance staff</li> </ul>	Town of Chase City citizens. Primarily elderly and disabled populations.	Higher, typically \$2.00 to \$3.00 (Round Trip)	Increased accessibility may encourage ridership, especially among elderly and the disabled.	Depends upon demand, but short, direct trips are likely.	Passenger may need to adjust pick-up/dropoff time based on vehicle availability.	Door-to-door or curb-to-curb service. Requires scheduling trips in advance.  Hours of operation from 7:30 am to 6:00 pm	Complex scheduling process, particularly if demand is great.

#### Notes:

Assumes an existing service such as Blackstone Area Bus System (BABS) and/or Lake Area Bus (LAB) would extend service to the area. Staffing requirements would be folded into existing personnel requirements.

<sup>&</sup>lt;sup>2</sup> Operating costs/year for Deviated Fixed-Route Systems are based on BABS TDP (2009). Average operation costs were calculated at \$2.20/mile and \$35/hour.

Operating costs/year for Demand-Responsive Systems is based on calculations utilizing farebox revenue and operating hours/miles driven. Average operation costs were calculated at \$2.00/mile and \$28/hour.

<sup>&</sup>lt;sup>3</sup> Capital cost/vehicle are based on two vehicles purchased.

<sup>&</sup>lt;sup>4</sup> Deviated fixed-route fare is based on BABS current fare. For demand-responsive route, fare is based on LAB current fare.

<sup>&</sup>lt;sup>5</sup> Route lengths do not consider route deviations.

## RECOMMENDATIONS

All four alternatives (Alternatives 1, 2A, 2B, and 3) described above are feasible in terms of meeting the unmet transportation needs in the Town of Chase City. They all increase access to transportation, particularly for the significant portion of elderly and disabled populations. They also all use access to transportation to further economic development goals of supporting local retail.

All alternatives offer opportunities for future regional connectivity of transportation services. There are no transit services currently operating and thus no need for near-term coordination of different providers. However, the three alternatives presented would easily accommodate future coordination with nearby areas.

#### A. Service Plan

#### 1. NEAR TERM SERVICES

Based on quantitative and qualitative data analysis<sup>14</sup> concerning transit needs, this study recommends Alternative 1 as *initial service*.

Alternative 1 – Deviated Fixed-Route (Service Frequency: 45 minutes, Service Duration: 7:30 am-5:00 pm)

This alternative offers more trips per day than Alternative 2, increasing convenience and attractiveness. It concentrates the service area within the Town of Chase City where more riders are likely to be. As implementation planning progresses, and even after beginning service, the route can be modified to serve the locations generating regular riders. Given the conservative estimate of operating speed, the route could be lengthened while still maintaining the 45 minute frequency.

It is recommended that the Town adopt a route deviation policy that balances broadening access to the most potential riders while discouraging excessive deviations that could slow down operations. For example, a passenger eligible under the ADA for paratransit service could request a route deviation at no additional charge. Route deviation for able-bodied individuals would not be provided.

Additional information on the recommended alternative's service characteristics is provided in the Transit Service Plan Summary, Table 12.

#### 2. LONG TERM SERVICES

In the *longer term*, if there is sufficient interest and multi-jurisdictional support, it may be appropriate to consider expanding service to neighboring towns such as the Town of Boydton (approximately 10 miles south of Town of Chase City), Clarksville (approximately 15 miles southwest of Town of Chase City), and Victoria (approximately 20 miles northeast of Town of Chase City) and/or into Mecklenburg County. This could be an avenue to promote economic development and business opportunities in the Town of Chase City.

Should ridership continue to grow and it become feasible, the system could be expanded to connect the Town of Chase City with the Town of South Hill (approximately 21 miles southeast of Town of Chase City). South Hill offers wider options for medical/dental services, education, employment, entertainment (movies, restaurants, etc.), services, and goods.

<sup>&</sup>lt;sup>14</sup> Qualitative and quantitative data comes from the following sources:

a) Review of relevant studies and local plans.

b) Demographic analysis based on Census 2000 information (population, density, number of households, age distribution, and households with no auto availability).

c) Local stakeholders and transit providers input provided in interviews and telephone conversations. (See **Appendix A** for complete list)

In the event that after a year of service ridership has not materialized, Alternative 3 could be implemented. Demand-responsive service would involve reducing service to only those people with the greatest need. Alternative 3 will not substantially change the operating cost of the system.

#### 3. TRANSIT SUPPORTIVE DEVELOPMENT

Given that capital and operating costs of transit service requires public subsidy, it is important for land development patterns to support higher transit usage. Most commonly accepted measures of transit supportiveness, such as population density, are geared toward urban areas. Nonetheless, some factors are applicable to rural areas and small towns. As redevelopment occurs in and around the Town of Chase City, planners can keep in mind these factors that support higher transit use.

- Concentration of employment. At present, the Town of Chase City has a concentration of retail employment along Main Street and the industrial area on the outskirt of the northern part of the Town. As redevelopment occurs, the Town should encourage re-using or constructing new employment centers in these already developed areas.
- Mix of use in the downtown area. The presence of a variety of shops, offices, and restaurants in the downtown encourages people with different trip purposes to come to one location that is readily accessible by transit. The Town could consider increasing the amount of housing permitted in a near downtown.
- Consider implementing parking meters. The presence of parking meters on the streets and in public parking lots in Town of Chase City downtown would encourage transit use over driving, as well as generate revenues for public space improvements. However, due to the rural nature of the Town, the pricing of parking would need to be weighed carefully so that customers are not encouraged to shop outside the Town of Chase City downtown.

## **B.** Organizational Plan

The study recommends using the institutional structure of an established service provider, such as BABS, LCAAA, or a similar transit provider, to initiate service. BABS, LCAAA, or a similar service could offer turnkey operations, handling grant applications, regulatory requirements, heavy maintenance, human resources, and bookkeeping. Essentially, using this type of service organization would require only an extension of existing services and operations, rather than the creation of a new institution. No additional steps or significant institutional changes for the service provider would be necessary, and no additional Town staffing would be required. Existing Town and transit provider staff would be able to establish an agreement for services, coordinate service, and process billings/payments for the service.

Additional information on the organizational plan and associated staffing is provided below in the Transit Service Plan Summary, **Table 12**.

#### C. Financial Plan

The recommended alternative has an estimated operating cost of \$87,000 and capital costs of \$100,000. Farebox revenue is projected to be \$2,400, with a combination of federal, state, and local funds filling out needed revenue.

Additional information on the costs and revenue associated with the recommended alternative is provided in the Transit Service Plan Summary, **Table 12**.

## D. Transit Service Plan Summary

Table 12 summarizes the characteristics of the recommended transit service for the Town of Chase City.

TABLE 12: TRANSIT SERVICE PLAN -TOWN OF CHASE CITY

SERVICE PLAN	DESCRIPTION
Service plan – Near term	Alternative 1 –Deviated Fixed Route
Service Plan – Long term	If there is sufficient interest and multi-jurisdictional support, it may be appropriate to consider expanding service to neighboring towns such as the Town of Boydton, Clarksville, Victoria, or South Hill, and/or into Mecklenburg County.
Service characteristics	<ul> <li>Type of Service: Deviated Fixed-Route</li> <li>Route length: approximately 8.3 miles</li> <li>Route Deviation: ¾ mile from fixed route for ADA certified riders</li> <li>Service Frequency: 45 minutes</li> <li>Service Hours: 7:30 am to 5:00 pm weekdays (9.5 hours/day)</li> <li>Fare: \$0.50 (one-way)</li> </ul>
Performance Data	Trips/hour: 1 (Every 45 minutes) Cost /trip: \$18.26 (Based on estimated cost/mile=\$2.20)
User groups	Town of Chase City citizens, including elderly and disabled populations
Estimated Ridership	400 person/month (based on BABS Dinwiddie Service –after one year in operation)
Vehicle Requirements	Two small body on chassis vehicles. One as a primary vehicle and the second as a spare vehicle used during regular or emergency maintenance.
ORGANIZATIONAL PLAN	
Service Provider	<ul> <li>Service provider (BABS, LCAAA, or similar) offers turnkey operations, handling grant applications, regulatory requirements, heavy maintenance, human resources, and bookkeeping.</li> <li>The transit vehicle may be warehoused locally at the Public Works Department in the Town of Chase City.</li> <li>Operations costs are less than service started by Town due to the service provider's systems, operations, etc., already in place.</li> </ul>
Staffing	<ul> <li>Vehicle operators – A minimum of three part-time drivers would be needed.         Vehicle operators are required to have a Commercial Driver's License (CDL) with Passenger Endorsement (Class P).</li> <li>Administrative – It is assumed that administrative duties would be performed within the existing framework of existing personnel at BABS.</li> <li>Maintenance – BABS would be responsible for providing vehicle maintenance.</li> </ul>
FINANCIAL PLAN <sup>15</sup>	
Capital Cost <sup>16</sup> /Operating Cost (Based on above vehicle req's)	Operating Cost: \$87K Capital Cost: \$100K
Annual Operating Cost	\$86,450
Farebox Revenue/year	\$2,400 (2.7%)
Anticipated Funding Contributions (After Farebox revenue)	Federal Funds (50%): \$42,025 State Funds (18%): \$15,129 Local Funds (32%): \$26,896

Source: Sources for the information contained in the table above are provided in the respective section of this document.

BABS cost data is used because it is an existing system with a history of providing deviated fixed-route service. Data is intended to be representative of what costs might be for a similar service, regardless of specific service provider or transit agency.

<sup>&</sup>lt;sup>16</sup> Capital costs include mobile radios, farebox, bus shelters and bus stop signing.

# Town of Blackstone/ Fort Pickett Area

Final Report

Public Transportation Feasibility Study

## **SUMMARY**

After conducting a public transportation needs assessment for the Town of Blackstone and the Fort Pickett area, examining existing providers, and proposing possible transit alternatives, this study recommends deviated fixed-route transit service (Alternative 2) in the near term (See Figure 23). Blackstone Area Bus System (BABS) currently provides service to the Town of Blackstone and this study suggests that its service and operations be extended to include the Fort Pickett area.<sup>17</sup> In the long-term, if ridership grows and it becomes feasible, service hours could be expanded and/or service frequency could be increased.

A detailed look at the analysis leading up to these key recommendations is provided in the following pages. A summary of the Town of Blackstone and Fort Pickett's Transit Service Plan, which includes organizational and financial recommendations, is provided toward the end of this section, in Table 26.

<sup>17</sup> BABS is suggested as a preferred provider for Fort Pickett due to its existing and established service in nearby Blackstone. Similar service could be provided by another organization or agency.

## **NEEDS ASSESSMENT**

Below is information regarding the needs assessment for public transportation in and around the Town of Blackstone/Fort Pickett area.

## A. Goals and Objectives

The Study Team and Blackstone Area Bus System (BABS) representatives held meetings with representatives of Fort Pickett, Southside Virginia Community College (SVCC) and the Town of Blackstone to discuss the goals and objectives of the project and to assess available data for the study. The Study Team conducted additional interviews to further assess the needs of the potential users (See **Appendix A**). From this, it was determined that potential public transportation system types should be focused on the area in and around the Town limits.

The goal of the study for Blackstone/Fort Pickett area is to assess the need for public transportation for citizens within Blackstone, military personnel, students, and citizens working on the base to access downtown businesses. Since the SVCC has a campus within Fort Pickett, the study is also exploring the feasibility of providing public transportation for SVCC students.

Public transportation options for Fort Pickett will accomplish the following objectives:

- Increase transportation choices and improve mobility;
- Increase the accessibility of the SVCC campus to students; and
- Encourage economic activity by increasing the patronage of businesses within Blackstone and support economic development.

#### B. Review of Previous Studies

As part of this study, the Study Team reviewed relevant comprehensive plans and other relevant documents. Relevant information contained in these documents is summarized below:

#### 1. Town of Blackstone Comprehensive Plan (2000)

The Comprehensive Plan provides information regarding geographic features and other elements, which affect the development around the Town. Specifics are detailed below.

- Population is expected to increase in future years due to the relocation of the National Guard Headquarters to Fort Pickett.
- An increase in elderly and disabled population will necessitate additional health care, recreational facilities, low cost housing, and transportation options.
- One of the main objectives of the Comprehensive Plan is to support the Town's elderly population as well as low income population.
- The Comprehensive Plan also mentions that bus services within the Town of Blackstone will be studied in the future. Subsequent to the Plan's adoption, the Blackstone Area Bus System (BABS) started its operation in 2003.

#### 2. NOTTOWAY COUNTY COMPREHENSIVE PLAN (2004)

The transportation section of the Nottoway County Comprehensive Plan was reviewed. This section provides information related to the Blackstone Area Bus System (BABS), as described in the BABS Transportation Plan below.

#### 3. BLACKSTONE AREA BUS SYSTEM (BABS) TRANSIT DEVELOPMENT PLAN (TDP) (OCTOBER, 2009)

The TDP provides a 6-year look-ahead of current capacity, anticipated expansion and potential funding mechanisms, operations, and maintenance for the BABS service. BABS is located and operated in the Town of Blackstone. The bus system was originally operated within and around the town limits, but service has been expanded to Kenbridge, Victoria, Lunenburg Courthouse, Burkeville, Crewe, Brunswick, Dinwiddie, and surrounding areas. BABS started operations on January 13, 2003. In the first year of operation, there were over 8,700 passengers. Between 2003 and 2008 the ridership grew from 100 to 1,400 passengers per month.

#### 4. FORT PICKETT MASTER PLAN

Fort Pickett representatives indicated that there is no Master Plan for Fort Pickett.

## 5. COMMONWEALTH REGIONAL COUNCIL (PDC 14) COORDINATED HUMAN SERVICE MOBILITY PLAN<sup>18</sup> (JUNE, 2008)

Although Nottoway County (and therefore Blackstone and Fort Pickett) is not officially part of PDC 14, information for Nottoway County was included in this report. Specific items related to the Town of Blackstone and the Fort Pickett area are listed below.

- The southeastern portion of Nottoway County in the area near Blackstone is the only place in the PDC with a low population of older persons per census block group.
- Further, Nottoway, Prince Edward, and Amelia Counties had the fewest number of disabled people per block group.
- Key activity centers located in and around Blackstone/Fort Pickett included the Wal-Mart, Reiss Manufacturing Inc, and SVCC.
- Demographics of the County included 16 census blocks and are presented in Table 13.

<sup>&</sup>lt;sup>18</sup> The Commonwealth Regional Council (PDC 14) Coordinated Human Service Mobility Plan (June 2008) was prepared for the counties of Amelia, Buckingham, Charlotte, Cumberland, Lunenburg, Prince Edward and the Town of Farmville. Even though Nottoway is not officially part of PDC 14, it was included in this report.

TABLE 13: DEMOGRAPHIC DATA NOTTOWAY COUNTY

Block Group Number	County	Land Area (Sq Mi)	House- holds	Pop- ulation	Population Density (Pers/Sq Mi)	Elderly	Mobility Disabled	Below Poverty	Autoless Households
511359901001	Nottoway	55.0	644	1,555	28.3	309	116	301	52
511359901002	Nottoway	38.5	15	14	0.4	0	0	0	0
511359901003	Nottoway	1.7	414	858	512.9	183	117	215	48
511359901004	Nottoway	4.1	604	1,369	337.1	236	109	472	75
511359901005	Nottoway	2.7	532	1,273	465.7	512	95	224	56
511359901006	Nottoway	10.8	435	1,018	94.4	213	22	99	56
511359902001	Nottoway	42.4	369	820	19.3	152	66	71	14
511359902002	Nottoway	24.7	414	881	35.6	216	91	237	33
511359902003	Nottoway	37.7	379	809	21.4	170	41	249	45
511359903001	Nottoway	31.7	440	959	30.2	238	66	165	25
511359903002	Nottoway	11.7	330	682	58.4	165	109	94	33
511359903003	Nottoway	37.3	301	676	18.1	161	27	69	41
511359903004	Nottoway	8.9	258	2,013	227.3	289	91	139	41
511359903005	Nottoway	1.6	611	1,342	837.9	262	102	268	88
511359903006	Nottoway	0.6	286	623	982.7	127	44	84	17
511359903007	Nottoway	5.2	341	833	160.9	185	48	132	9
	Totals	314.6	6,373	15,725	3,830.6	3,418	1,144	2,819	633

Source: Commonwealth Regional Council (PDC 14) Coordinated Human Service Mobility Plan<sup>19</sup> (June, 2008)

## C. Public Transportation Needs Assessment

Currently, the Blackstone Area Bus System provides bus service to the Town of Blackstone on six deviated fixed routes (of the eight total routes operated by BABS) connecting the Town in all directions using the major roadways including State Route 460, State Route 40, and State Route 46.

The transit needs of the Town of Blackstone/Fort Pickett area have been identified based on the following:

- a) Review of relevant studies and local plans;
- b) Demographic analysis based on Census 2000 information (population, density, number of households, age distribution, and households with no auto availability);
- c) Identification of key activity centers provided by representatives from BABS, DRPT, Fort Pickett, SVCC, and Blackstone officials; and
- d) Local stakeholder input provided in interviews and telephone conversations.

<sup>19</sup> The Commonwealth Regional Council (PDC 14) Coordinated Human Service Mobility Plan (June 2008) was prepared for the counties of Amelia, Buckingham, Charlotte, Cumberland, Lunenburg, Prince Edward and the Town of Farmville. Even though Nottoway is not officially part of PDC 14, it was included in this report.

#### 1. KEY ACTIVITY CENTERS

Figure 13 shows the zoning map<sup>20</sup> for the Town of Blackstone. The Town has a mixture of zoned residential and commercial areas, with most businesses located along Main Street. Lower density residential areas are located on the outskirts of the Town. Medium to high density residentially zoned areas are located closer to Main Street.

Fort Pickett is located on the east side of the Town. In addition to housing the military base, Fort Pickett includes a campus of the Southside Virginia Community College (SVCC), Nottoway County offices, and a campground.

Neighboring towns/cities to the Town of Blackstone are connected through existing public transportation (BABS service). The closest towns include: Victoria (southwest), Kenbridge (southwest), Alberta (south), Lawrenceville (south), McKenney (west), and Crewe (north).

As **Figure 14** shows, the major destination points in the Town of Blackstone are located along Main Street. Wal-Mart and Food Lion, which are the major retail providers, are located in the outskirts of the Town of Blackstone, approximately a mile south of downtown.

As depicted in Figure 14, access to Fort Pickett from the Town of Blackstone is through West Entrance Road and Military Road. As Figure 14 indicates, the major destination points in Fort Pickett are spread out around the military base. SVCC is located on the northern side of Fort Pickett.

Major corridors include:

- Main Street running north-south within the Town of Blackstone;
- Church Street running from Main Street to the west side of Town; and
- Dinwiddie Avenue, running from Main Street to the east side of the town, provides primary access to the Fort from Blackstone.

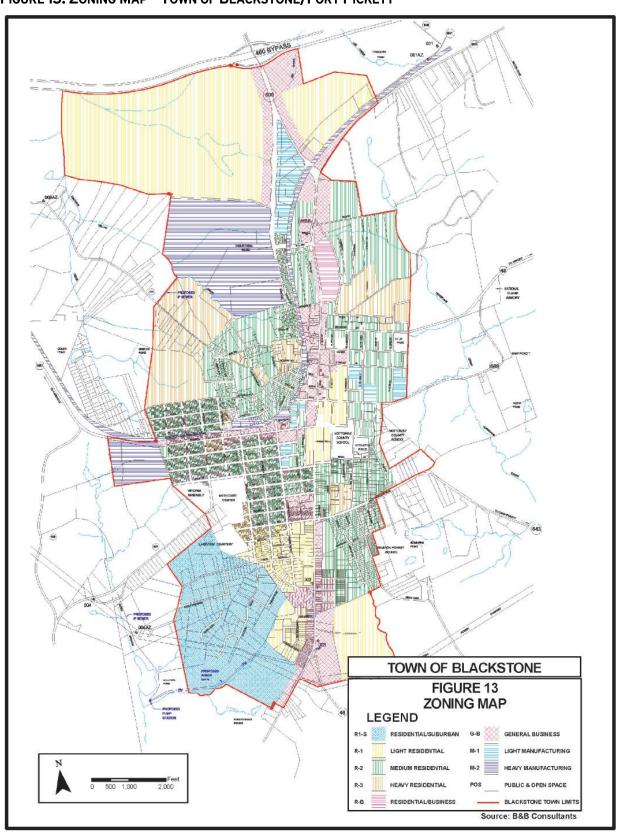
As **Table 14** shows, there are several major destination points within the Town of Blackstone that could potentially be served by a public transportation system that serves Fort Pickett.

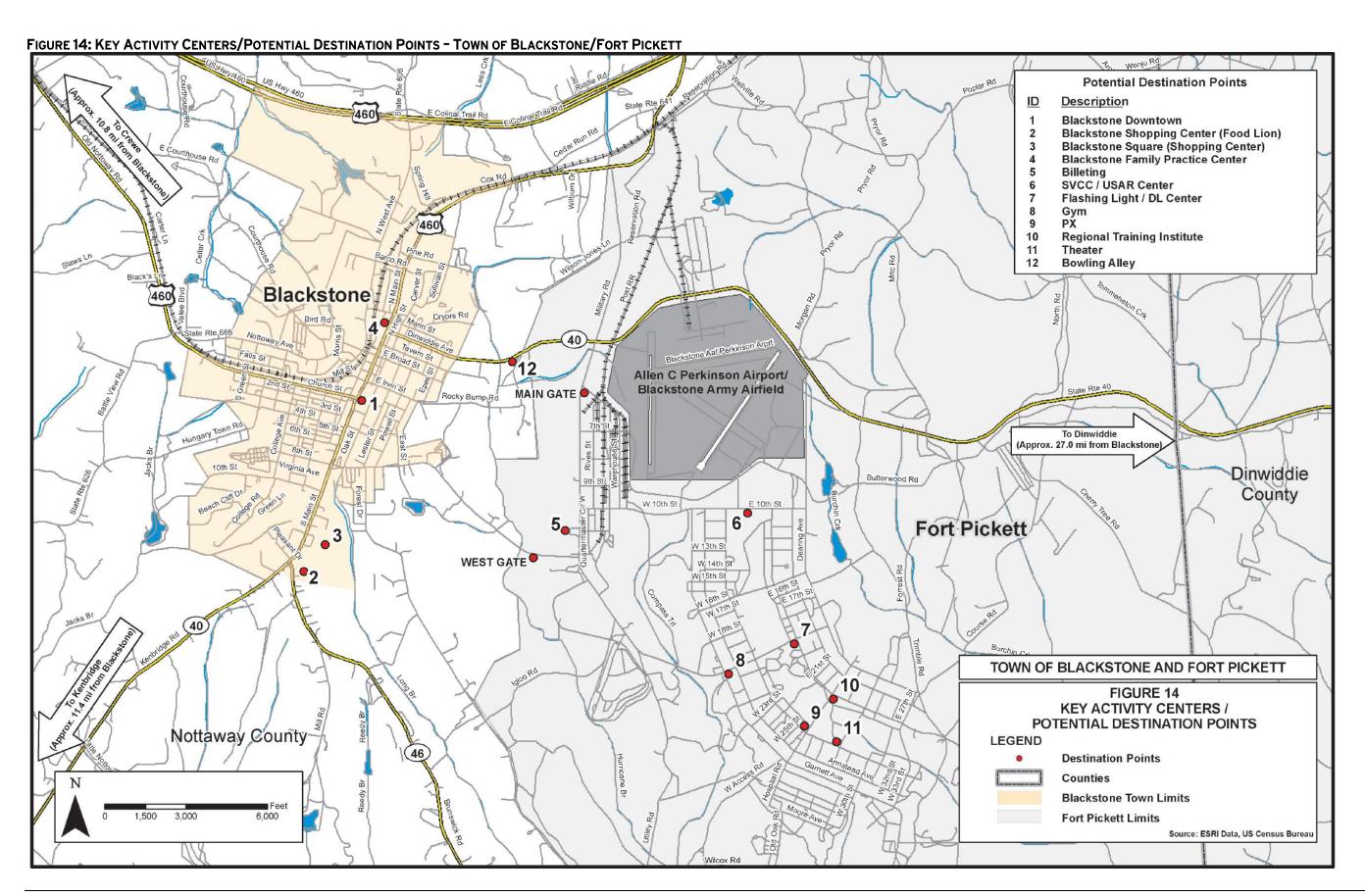
TABLE 14: KEY ACTIVITY CENTERS/POTENTIAL DESTINATION POINTS IN THE TOWN OF BLACKSTONE/FORT PICKETT AREA

ID	Destination Point	Туре	Potential Impact of Transit Service on Destination
1	Central Business District (CBD)	Various business	Promote economic development mainly in the downtown area (i.e., restaurants, pharmacies, bank, retail stores, etc.).
2	Blackstone Square Blackstone Shopping Center	Retail Store	Improve accessibility to major retail stores such as Wal-Mart, Food Lion, Goodwill, and Wendy's.
3	Blackstone Family Practice Center	Health	Improve accessibility for patients.
4	Southside Virginia Community Collect (SVCC)	Education	Provide access to major activity and education centers.
5	Fort Pickett	Military base	Provide access to major destination points within Fort Pickett (e.g., billeting, flashing light/DL Center, gym, PX, Regional Training Institute, movie theater, etc).

<sup>&</sup>lt;sup>20</sup> Note: Only the area directly in and around the Town of Blackstone was available. Existing land use can be inferred from the zoning map.

FIGURE 13: ZONING MAP - TOWN OF BLACKSTONE/FORT PICKETT





#### 2. DEMOGRAPHIC ANALYSIS

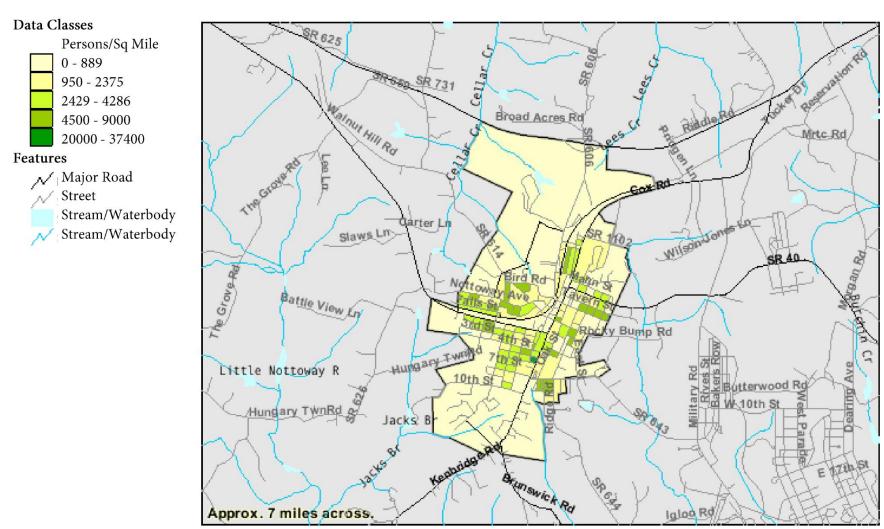
**Figure 15** shows population density in the Town of Blackstone, based on US Census 2000 data. The average population density in 2000 was 812 people per square mile. As can be seen from the figure, the most populated areas are along Main Street, Church Street, and Dinwiddie Avenue. The population density is low on the northern and southern fringes of the Town.

Approximately 21% of the population is 65 years of age or older. The median age is 40 years. **Figure 16** shows the population distribution of the elderly population in the Town. As can be seen from the figure, the elderly population is spread out across the town, with some concentration along Main Street.

Approximately 19% of the Town population is disabled. Figure 17 shows the location of people between 21 and 64 years old with disabilities. They are mostly concentrated on the northern side of the town.

The household median income in the Town in 2000 was \$27,566, and the family median income was \$41,520. Approximately 20% of families and 27% of the population overall fell below the poverty line.

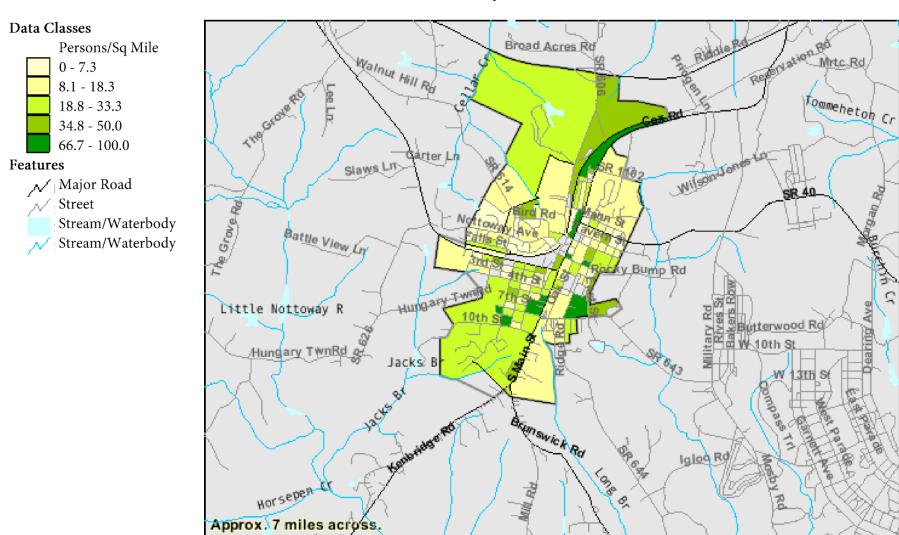
FIGURE 15: POPULATION DENSITY IN TOWN OF BLACKSTONE/FORT PICKETT AREA (PERSONS PER SQUARE MILE)



Source: U.S. Census Bureau. Census 2000 Summary File 1, Matrix P1

Note: The data classes are not consecutive numbers. Population densities that fall between categories do not exist within the Chase City area shown above.

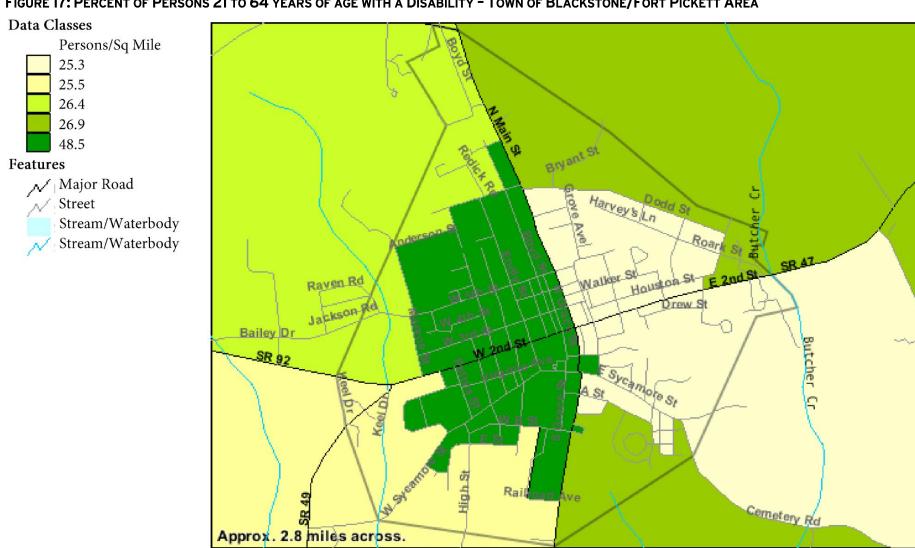
FIGURE 16: PERCENT OF PERSONS 65 YEARS AND OLDER - TOWN OF BLACKSTONE/FORT PICKETT AREA



Source: U.S. Census Bureau. Census 2000 Summary File 1, Matrices P1 and P30

Note: The data classes are not consecutive numbers. Percentage of persons 65 years or older that fall between categories do not exist within the Chase City area shown above.

FIGURE 17: PERCENT OF PERSONS 21 TO 64 YEARS OF AGE WITH A DISABILITY - TOWN OF BLACKSTONE/FORT PICKETT AREA



Source: U.S. Census Bureau. Census 2000 Summary File 3, Matrix P42

Note: The data classes are shown for the areas as denoted above.

As described earlier, one of the main objectives of providing transit for Fort Pickett/Town of Blackstone are to provide access to downtown for the military personnel and citizens of Blackstone/Fort Pickett as well as serve the students of SVCC (located within Fort Pickett). The number of students enrolled at SVCC ranges from 50 to 100, with the majority residing in the Town of Blackstone. Military personnel stationed at Fort Pickett range from 24,000 to 39,000 personnel per year. Detailed demographic information is classified. However, Fort Pickett provided historic troop population density data, which is shown on Figure 18. Historically, December and January have had lower population densities at Fort Pickett with approximately 500-1,500 soldiers and the highest populations being in October and November with 5,000-8,000 soldiers.

FORT PICKETT - Population variation during the year 8.000 ■ Minimum Population ■ Maximum Ppopulation 7,000 6,000 3,000 2,000 1,000 JAN FEB MAR APR MAY JUN JUL AUG NOV SEP ост Month of the Year

FIGURE 18: FORT PICKET POPULATION (BY MONTH)

Source: Provided by Fort Pickett representatives

#### 3. LOCAL STAKEHOLDER INPUT

Interviews and telephone conversations were conducted with local stakeholders such as representatives of the Blackstone Chamber of Commerce (BCC), Southside Community College (SVCC), and Fort Pickett. Input from these stakeholders is summarized below:

#### A. Employment

Currently the BCC has 145 members, with about 35 businesses located in downtown.

#### B. Blackstone Area Bus Service (BABS) Transit Service

The BABS system is used to access downtown, grocery stores, pharmacies, restaurants, Wal-Mart, and other destinations points.

Currently there is no transit service between Fort Pickett and the Town of Blackstone. Providing this service will promote business in the downtown area as military personnel without personal vehicles are provided transportation options for accessing the Town.

BABS is planning to start services from Church Street (eastside downtown Blackstone) to Fort Pickett on Wednesdays and Thursdays from 9 am to noon (to begin December, 2009). This service will run every half hour, and will serve students enrolled in the heavy equipment operations class at SVCC located at Fort Pickett.

#### C. Southside Virginia Community College (SVCC) Classes

SVCC operates from 7 am to 9 pm Monday – Friday. Representatives from SVCC indicated that SVCC is flexible to scheduling class schedules to match transit service schedules. The majority of students at SVCC live within the Town of Blackstone limits, but there is a portion that lives within a 15-mile radius of the SVCC and Fort Pickett.

SVCC is slated to begin offering Adult Basic Education (ABE) and General Education Development (GED) classes in 2010. These students do not typically have driver's licenses and would be dependent on other forms of transportation. On average, GED preparation class will have approximately 25 to 30 students.

If public transportation access was provided to Fort Pickett, drivers of any vehicle would have to show a government issued identification. In addition, all passengers (whether in a private vehicle or on a bus) must show a government issued identification.

#### D. Fort Pickett

There are currently four buses located inside Fort Pickett that are used for transporting soldiers once on-base. Buses do not circulate outside Fort Pickett. There are no designated routes, schedule or stops. These buses are used to provide transportation only when they are requested by military personnel. The number of military personnel who have permission to enter/exit Fort Pickett vary throughout the year, with most military personnel not possessing personal vehicles while on-base.

## D. Assessment of Transportation Potential and Unmet Needs

Key transit needs identified for the Town of Blackstone/Fort Pickett based on the above assessment are the following:

#### **Base Population**

• With additional transportation options, military personnel without other forms of transportation will be able to access downtown and beyond.

#### Students

• Improving access to SVCC will promote education and employment.

#### Seniors/Disabled

• With additional transportation options, seniors/disabled can better utilize facilities and services in the Town of Blackstone/Fort Pickett area.

#### Other Citizens

- Providing a transit service from Fort Pickett to the Town of Blackstone will promote business in the downtown area.
- With public transit service already existing within the Town of Blackstone and connecting routes to other towns, providing service between Blackstone and Fort Pickett will expand transportation connectivity and economic opportunities in the area.

## **EVALUATION OF TRANSPORTATION PROVIDERS**

Below is information regarding the evaluation of existing public transportation options provided in and around the Town of Blackstone/Fort Pickett area.

#### A. Current Providers and Services

Currently, there is no public transportation service within Fort Pickett. However, two miles away in the Town of Blackstone, the Blackstone Area Bus System (BABS) operates the public transportation system for the Town. This analysis focuses on BABS's service and its potential to serve the Fort Pickett area.

The Commonwealth Regional Council (Planning District Commission 14) Coordinated Human Service Mobility (CHSM) Plan<sup>21</sup> provides a high level summary of transportation services and resources available in the region surrounding Fort Pickett and the Town of Blackstone. **Table 15** provides a summary of those resources in the PDC and is adapted from the CHSM Plan. The Blackstone Area Bus System (BABS) has been added to this table, as it was omitted from the CHSM Plan.

TABLE 15: REGIONAL TRANSPORTATION SERVICE PROVIDERS, PLANNING DISTRICT COMMISSION 14

Provider	Clients	Vehicles	Service Characteristics	Trips
Blackstone Area Bus System (BABS)	General public	16 vehicles (2008)	Deviated fixed-route; hours and days of operation vary by route, most operate Mon – Fri 6 am – 5 pm Fare is \$0.50 - \$1.00 per one-way trip	30,900 annually (2008)
Crossroads Community Services (CCS)	Individuals with disabilities, for work-related trips. Brokers with other program-oriented service providers for services	18 vehicles	Deviated fixed-route; 5–9 am, 2–5 pm Mon-Fri; some evening routes/service	6,000 annually
Farmville Area Bus (FAB)	General public and university students	13 vehicles (2008)	Afternoon/evening service, Mon-Thu noon-8 pm, and Fri-Sat noon-11 pm; some express routes; fare is \$0.25	121,800 annually (2008)

Source: Commonwealth Regional Council (Planning District Commission 14) Coordinated Human Service Mobility (CHSM)
Plan, Virginia DRPT, April 2008. BABS information provided by: Blackstone Area Bus System administration personnel.
Updated information (2008) related to BABS and FAB service was provided by DRPT

#### 1. MAGNITUDE AND EXTENT OF SERVICES

While all of the services highlighted above operate in the region, BABS service is the most relevant to Fort Pickett. BABS began operation in 2003 serving the Town of Blackstone and its outskirts. The service grew to Kenbridge, Victoria, Lunenburg Courthouse, Burkeville, Crewe,

<sup>&</sup>lt;sup>21</sup> The Commonwealth Regional Council (PDC 14) Coordinated Human Service Mobility Plan (April 2008) was prepared for the counties of Amelia, Buckingham, Charlotte, Cumberland, Lunenburg, and Prince Edward, and the Town of Farmville.

Brunswick, Dinwiddie, and surrounding areas. BABS currently operates eight routes<sup>22</sup> serving eight counties in south central Virginia.<sup>23</sup> While hours and days of operation vary for each route, most operate Monday through Friday from 6 am to 5 pm.

BABS operates buses on a deviated fixed-route schedule. In this type of operation, certain deviations from the designated fixed route can be accommodated. These deviations are governed by Americans with Disabilities Act (ADA) regulations, which allow route deviations within ¾ miles of the defined fixed route. People with disabilities can also be picked up as long as they are located within the ¾ mile allowable deviation. Passengers flagging down a bus along the route will be allowed to board. Deviated fixed-route service requires 24-hour notice for pick-up/drop-off although request with shorter notice are often accommodated. It is a usual occurrence to request a deviation when boarding the bus. Depending on the number of passengers and other requested deviations, if it is possible, these requests received when boarding are granted.

On the following pages, Figures 19 and 20 show the eight routes operated by BABS. Table 16 summarizes the hours of operations, service frequency, and coverage area for each route.

<sup>&</sup>lt;sup>22</sup> The eight routes include the Town and County Transit route, which operates the Orange and Green Line. The Orange line is a subset of the Green line and operates on Monday, Wednesday, and Friday. The Green line incorporates the Orange line and extends to Blackstone but only operates on Tuesdays and Thursdays.

<sup>&</sup>lt;sup>23</sup> DRPT has not yet developed general transit service standards for small urban area or rural fixed-route bus systems like BABS. BABS has adopted some of the Maryland Transit Guidelines (Source: BABS TDP – Chapter 3 Pages 13-22).

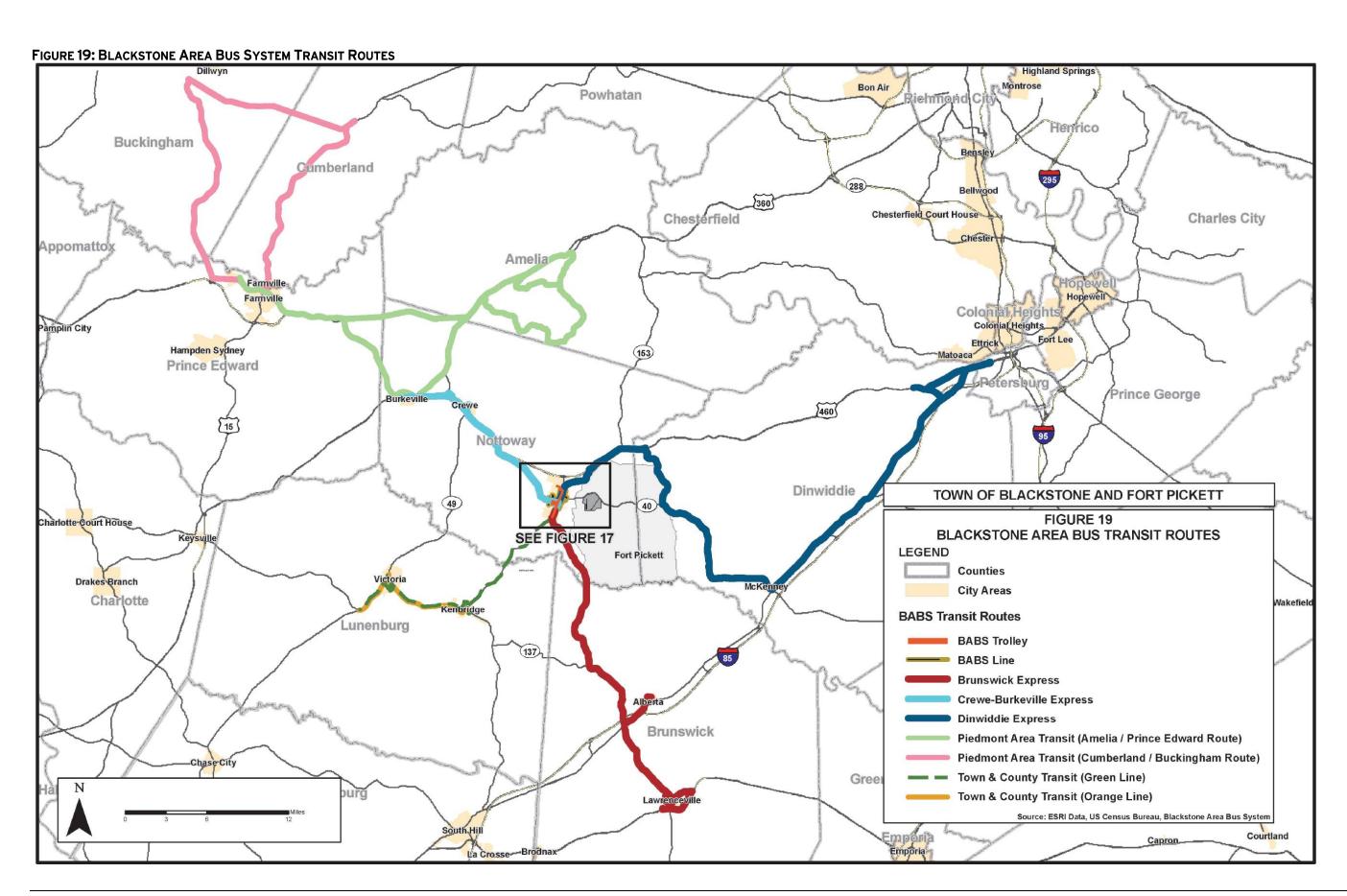


FIGURE 20: BLACKSTONE AREA BUS SYSTEM (BABS) TRANSIT ROUTES - TOWN OF BLACKSTONE ROUTE

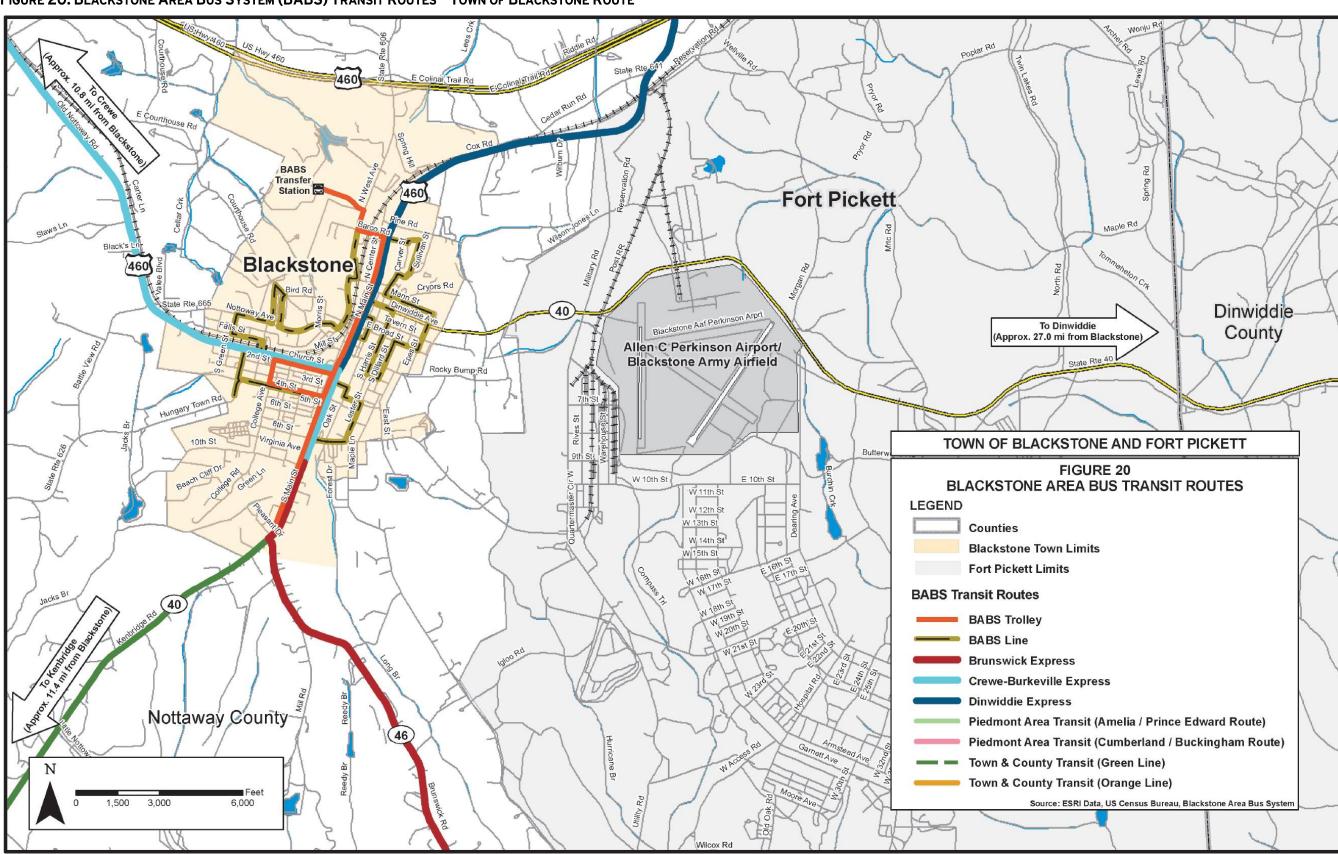


TABLE 16: BLACKSTONE AREA BUS SYSTEM (BABS) OPERATIONS SUMMARY

Route Name	Days of Operation	Hours of Operation	Service Frequency	Service Area	
Blackstone Area	Monday through Friday	6:00 am to 5:00 pm	One hour headway	Cover downtown portion of Town of Blackstone, surrounding neighborhoods	
Bus Route	Saturday	9:00 am to 5:00 pm	One hour headway	and commercial areas of the Town.	
Brunswick	Monday through Friday. From September to the last week of May (Memorial Day)	7:50 am to 4:20 pm	Morning service runs at 7:50 am, 9:10 am, and 10:57 am, and afternoon service starts at 1:45 pm and 3:38 pm.  Not all runs stop at the same stops.	This route begins in Blackstone and runs through Lawrenceville and Alberta, returning to Blackstone. This route serves	
Express	Tuesday and Thursday. After Memorial Day to end of August	7:50 am to 4:20 pm	Morning service runs at 7:50 am, 9:10 am, and 10:57 am, and afternoon service runs at 1:45 pm and 3:38 pm.  Not all runs stop at the same stops.	Southside Virginia Community College (SVCC) and St. Paul's College.	
Crewe-Burkeville Express	Monday, Tuesday and Thursday	6:45 am to 5:30 pm	Morning service runs at 6:45 am, 9:00 am, 10:15 am, and 11:30 am. Afternoon service runs at 4:20 pm.  Return route differs – bus travels on Route 607 to Crewe.	This route connects Burkeville, Crewe, and Nottoway County with Blackstone.	
Town and	Monday, Wednesday and Friday (Orange Line)	7:00 am to 4:05 pm	Morning service runs at 7:00 am, 9:00 am, and 10:50 am. Afternoon service runs at 1:00 pm and 2:20 pm. Reverse directional runs are also available.	This route serves Kenbridge through Victoria to Lunenburg Courthouse.	
County Transit	Tuesday and Thursday (Green Line)	7:00 am to 4:45 pm	Morning service runs from Kenbridge at 7:00 am, 9:00 am, and 10:50 am.  Afternoon service runs at 1:00 pm and 2:50 pm. Reverse directional runs are also available.	This route includes "Orange line" service area. Route goes from Lunenburg Courthouse to Victoria, Kenbridge, and Blackstone.	
Piedmont Area	Monday through Friday (Cumberland/Buckingham Route)	5:55 am to 5:00 pm	Morning service runs at 5:55 am and 7:30 am Afternoon service runs at 1:00 pm and 3:00 pm. No reverse directional runs, but serves as loop.	This route was formerly operated by VA Regional Transit. It serves Amelia,	
Transit (PAT)	Monday through Friday 5:50 am to (Amelia/Prince Edward Route) 4:45 pm		Morning services runs at 5:50 am and 7:00 am. Afternoon service runs at 1:00 pm and 3:00 pm. No reverse directional runs but serves as loop	Buckingham, Cumberland, and Prince Edward Counties. It became a BABS line in October 2007.	
Dinwiddie Express	Monday through Friday	5:45 am to 6:20 pm	Morning service from the Blackstone area is at 5:45 am and 8:00 am. Afternoon service from the Blackstone area is at 2:00 pm and 4:15 pm. Reverse directional runs are also available.	This route serves Sutherland /Edgehill and McKenney of Dinwiddie County. Provides services along two major corridors: Route 40 and Route 1.	
BABS Trolley (Effective	Monday, Wednesday, and Friday	11:00 am to 2:00 pm	Day service begins at 11:00 am with half hour headways	This route serves Blackstone's Historic District, Blackstone Square and some	
December 2009)	Friday and Saturday	6:00 pm to 9:00 pm	Evening service begins at 6:00 pm with half hour headways	residential areas on the west side of downtown.	

Source: Blackstone Area Bus System Transit Development Plan

BABS system-wide annual ridership grew from approximately 8,700 in 2003 to 31,000 in 2008.<sup>24</sup> Over the same period, 2003 to 2008, monthly ridership grew from 100 to 1,400 passengers. **Figure 21** below depicts BABS's system-wide transit ridership from 2003 through September 2009. The figure shows up trending ridership of approximately 29% since BABS began its operations.

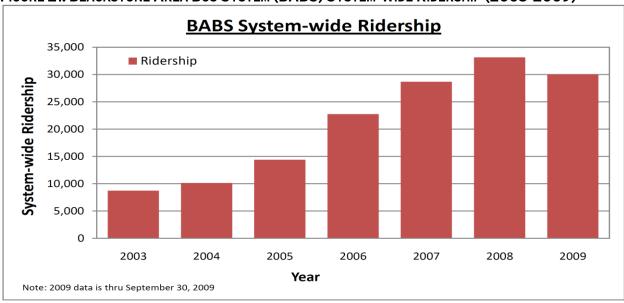


FIGURE 21: BLACKSTONE AREA BUS SYSTEM (BABS) SYSTEM-WIDE RIDERSHIP (2003-2009)

Source: Blackstone Area Bus System administration personnel.

**Table 17** below shows detailed ridership information for each route. The highest ridership is along the central Town of Blackstone line (also called "BABS"), which services downtown and surrounding neighborhoods and commercial areas. Total system-wide ridership since BABS inception is approximately 148,000.

TABLE 17: SYSTEM-WIDE BLACKSTONE AREA BUS SYSTEM (BABS) RIDERSHIP (2003-2009) – BY ROUTE

Year	BABS	Brunswick	Crewe/ Burkeville	Town and County	PAT	Dinwiddie	BABS Trolley Service	TOTAL
2003	8,729						0017100	8,729
2004	8,125			2,011			Not in	10,136
2005	11,191			3,204			service	14,395
2006	10,602	737	2,323	3,457	5,632		until	22,751
2007	11,543	2,915	4,592	3,376	6,246		December	28,672
2008	13,106	3,363	6,138	3,108	7,421		2009	33,136
2009*	11,860	2,964	4,478	3,116	6,316	1,286		30,020
TOTAL	75,156	9,979	17,531	18,272	25,615	1,286	n/a	147,839

Source: Blackstone Area Bus System administration personnel

<sup>\* 2009</sup> totals reflect ridership from January - September, 2009 inclusive. Ridership for all other years reflects January - December

<sup>&</sup>lt;sup>24</sup> BABS information is based on the BABS Transit Development Plan (TDP) developed for the fiscal years 2010 to 2015. The TDP was updated in October 2009, and is currently being finalized.

#### 2. EFFICIENCY, EFFECTIVENESS, COSTS AND RELIABILITY

BABS is currently part of the Town of Blackstone municipal government. It is staffed by 22 full-time, part-time, and hourly employees, as detailed in the list below.

- Two full-time employees: The Director and the Operation Assistant
- One part-time employee: Assistant to the Director
- Sixteen drivers: These drivers are typically retired commercial drivers. Currently BABS is hiring two additional drivers
- Three mechanics: Mechanics are compensated by the Town, but billed to BABS when service is performed for public transit service vehicles

The Town's general vehicle maintenance facility also serves as the maintenance facility for BABS. The costs of construction of the facility's six maintenance bays were shared by the Town and BABS, each funding three bays.

The BABS system's fleet consists of 13 diesel and gasoline buses – 11 of these buses are in regular use<sup>25</sup> and carry 14-19 passengers each. The current average age of the vehicle is 5.85 years with individual model years ranging from 1998 to 2008. All of the vehicles have two-way radios, but lack GPS, cameras, or alarms.

If service levels remain constant, no fleet expansion is anticipated. Instead, bus purchases will be limited to vehicle replacement, anticipated at one vehicle per year.

As described in the BABS Transit Development Plan (TDP) a central purpose of BABS service and operations is to serve low-income families in the region. Fares are fixed at \$0.50 per trip for all routes except for the "Town and County Line" route, which is \$1.00 per trip. BABS considers the current fares low, but feels it will be difficult to increase fares given the current economic climate and the area's low-income population.

The TDP also reports that BABS is operating at a good level of efficiency and local residents and riders view existing service as successful. According to an on-board survey completed in February and March 2009 for the TDP, 90% of passengers were satisfied with on-time performance.

#### 3. Funding

As described in the BABS TDP, the system has a good level of government support, but finances are constrained. The BABS operation and maintenance budget for fiscal year 2009 (October 1, 2008 – September 30, 2009) totals approximately \$574,000. Sources of these funds are shown in Table 18.

<sup>&</sup>lt;sup>25</sup> One is a spare bus and one is used for administrative purposes only.

TABLE 18: BLACKSTONE AREA BUS SYSTEM (BABS) OPERATION AND MAINTENANCE BUDGET FY 2009, SOURCE FUNDS

	Total System <sup>1</sup>		Blackstone	Brunswick
Source	Amount (Dollars)	Percentage (%) of Total Funds <sup>2</sup>	Route	Route
Federal Funds	\$180,500	50%	\$39,000 (50%)	\$22,400 (50%)
State Funds	\$83,900	23%	\$15,500 (20%)	\$9,600 (21%)
Local Government	\$96,600	27%	\$23,500 (30%)	\$12,800 (29%)

Source: Blackstone Area Bus System administration personnel

According to the BABS TDP, it is expected that by FY 2015 annual operation and maintenance costs will increase to \$645,000. It is anticipated that federal funds will remain constant at approximately \$282,000 from FY 2011 through FY 2015 and there will be a small increase in State funding of approximately 3.2% in FY 2014-FY 2015. Based on this information and projections of farebox revenues, it is expected that by FY 2015, the farebox revenues as a percentage of operating cost will decrease from the current 4% to 3%.

Funding for bus purchases and vehicle replacement, approximately one vehicle per year, is provided by a combination of federal, state, and local funds. A detailed breakdown of funding sources for bus purchases are as follows:

- Federal Funds (FTA 5311 Program) 80%
- State Funds 10%
- Local Government 10%

#### 4. DUPLICATION OF SERVICES

There is currently no duplication of service. The region's public transportation providers, including BABS, have defined and have non-overlapping service areas<sup>26</sup>. It should be noted that some routes within the BABS system do utilize portions of the same routes and provide for transfer locations between routes.

## **B.** Capacity for Future Expansion

BABS has the ability to provide public transportation to the Fort Pickett area. While the region has other transportation services, BABS is the most proximate public transportation provider and currently serves the Town of Blackstone and beyond.

#### 1. COORDINATION AMONG PROVIDERS

Expansion of BABS to the Fort Pickett area would require coordination with employers, residents, and the Army, but limited coordination with other providers. The existing absence of alternative public transportation providers serving Fort Pickett suggests that provider

<sup>&</sup>lt;sup>1</sup> Funds shown here do not include the Dinwiddie Route which operated from April-October. 2009 on a state and local demo grant. No federal funds were obtained. State funds totaled \$35,215 and Local funds totaled \$1,853. Farebox funds totaled \$858 for the timeframe.

<sup>&</sup>lt;sup>2</sup> Percentage of total operation and maintenance funds for BABS takes into account \$20,450 (4% of total budget, \$574,550) from the passenger fares. These farebox funds are deducted from the overall operating costs prior to calculating the federal/state/local percentages. Farebox return for the Blackstone Route is approximately \$6,700 (9%) and for the Brunswick Route is approximately \$1,600 (4%)

<sup>&</sup>lt;sup>26</sup> Non-overlapping service refers to public transportation service providers and not routes within the BABS system specifically.

coordination would be minimal to none and is similar to the type of coordination that BABS already engages in for its existing service areas.

#### 2. CAPABILITY TO EXPAND SERVICES

While BABS' TDP reports that expansion is considered unlikely over the next few years, BABS had demonstrated its ability to expand its service area, or acquire service as it did with the Piedmont Area Transit system. With appropriate funding and continued local government support as well as potential funding by Fort Pickett, SVCC, and/or other partners, BABS can very capably expand services to Fort Pickett.

#### 3. ABILITY TO RECEIVE FEDERAL FUNDING

BABS currently receives federal funding and would continue to be eligible and able to receive funding.

### C. Local Provider Opinions and Possible Courses of Action

Based on the BABS TDP and interviews with BABS representatives, several observations can be made. The system serves highly-populated, transit-dependent, employment and shopping areas and is viewed as successful by its ridership. The system has capacity to accommodate additional riders. Passengers rarely are required to stand for their entire trip.

BABS is interested in expanding its transit services to Fort Pickett and other areas. It is currently evaluating the extension of service to the Town of Chase City. Extension of these services will require additional funding and perhaps new funding sources. While the Town of Blackstone and Fort Pickett are very supportive of transit services, their finances are restrained.

Increasing public transportation options for Fort Pickett will improve access, connect area destinations, and increase economic opportunities for Town residents, students at the SVCC, and military personnel at Fort Pickett.

# SERVICE AND ORGANIZATIONAL ALTERNATIVES

#### A. Service Goals

As stated under the Needs Assessment section of this report, the following objectives have been identified:

- Increase transportation choices and improve mobility;
- Increase the accessibility of the SVCC campus to students; and
- Encourage economic activity by increasing the patronage of businesses within Blackstone and support economic development.

Available public transportation should assess the need for additional service for the citizens of the Town of Blackstone and military personnel and citizens working on the base to travel between Fort Pickett and the downtown businesses and commercial area on the south end of Main Street (including Wal-Mart). Since the SVCC has a campus within Fort Pickett, the study is also exploring the feasibility of providing public transportation for SVCC students.

#### **B. Service Area**

This transit feasibility study is being developed to provide additional public transit service in the Town of Blackstone/Fort Pickett area. This additional transit would serve Town of Blackstone residents, allowing students from Southside Virginia Community College (SVCC) to access the campus located within Fort Pickett and military personnel to access the downtown businesses and Wal-Mart site (as well as other locations along Main Street) during evening hours.

## C. Type of Service

Due to the existing public transportation service provided by BABS, variations of additional deviated fixed-route service were considered for the Town of Blackstone/Fort Pickett area. All service considered is bus service.

Deviated fixed-route service operates along designated routes with specific stops according to a fixed schedule ("fixed-route service" <sup>27</sup>), but has the additional flexibility to go off route, or deviate from the established route, to provide pick-ups and drop-offs. If there are no requests for deviation, the service operates as a traditional fixed-route scheduled service.

Requests for deviations can be handled in several ways. For pick-ups located off the fixed-route, riders contact the transit agency in advance with their pick-up request. For drop-offs located off the route, riders may call the transit office in advance or ask the driver upon boarding. If the request is made on-board, depending upon other requests the on-board request may not be honored. Deviated fixed-route service is particularly appropriate to rural areas.

<sup>&</sup>lt;sup>27</sup> Fixed-route service operates along designated routes with specific stops according to a fixed schedule. Fixed route service is offered primarily in urban areas in Virginia. Examples of fixed route bus service would be the transit services provided by Greater Lynchburg Transit Company, Danville Transit System, and Valley Metro in Roanoke.

# D. Service Frequency and Duration

A wide range of service frequencies are possible with deviated fixed-route service. Service frequency refers to how often a bus passes along a fixed-route. In rural applications, a service frequency of one bus per hour is typical. If passenger demand is lower, service frequencies can be reduced to a few trips per day.

Service duration is applicable to all service types. Service duration refers to the days of the week and hours of the day that public transportation service is offered. For rural areas, service duration is often Monday through Friday during the day (9 am to 5 pm, for example).

The alternatives presented in this study will offer different variations of service area, frequency, and duration. Route alternatives are conceptual and will be adjusted as part of the implementation of this study and its recommendations.

### E. Transit Service Alternatives

Three alternatives based on the identified needs and the characteristics of the Town of Blackstone/Fort Pickett area are proposed for further consideration. Within each alternative there are two different bus routes: a "day service," which will provide service beginning at different times during the day until 5 pm; and an "evening service," which will provide service from 5 pm to 11 pm.

 ALTERNATIVE 1 – DEVIATED FIXED-ROUTE (SERVICE FREQUENCY: 60 MINUTES, DAY SERVICE DURATION: 7 AM – 5 PM, EVENING SERVICE DURATION: 5 PM – 11 PM) – TOWN OF BLACKSTONE/FORT PICKETT AREA

Under Alternative 1, the proposed fixed-route would cover the majority of the key activity centers/potential destination points located within the limits of the Town of Blackstone, as listed below:

- Main Street/Downtown Blackstone
- Blackstone Shopping Center (Food Lion)
- Blackstone Square (Shopping Center)
- Blackstone Family Practice

Key activity centers/potential destination points served within the limits of Fort Pickett include:

- SVCC / USAR Center
- Regional Training Institute
- Flashing Light / DL Center
- Theater

• Gym

• Bowling Alley

• PX

Figure 22 depicts Alternative 1 for the Town of Blackstone/Fort Pickett area. The length of the "day service" is approximately 14.9 miles, with a round trip of approximately one hour, assuming an operating speed of 15 miles per hour. Approximate headway between runs would be 60 minutes, using one vehicle. Service hours are proposed from 7 am to 5 pm during weekdays only.

The length of the "evening service" is approximately 15.5 miles, with a round trip timeframe of approximately one hour, assuming an operating speed of 15 miles per hour. Approximate headway between runs would be 60 minutes, using one vehicle. Service hours are proposed from 5 pm to 11 pm weekdays.

The "day service" would depart from the Wal-Mart site located on Main Street in the south end of the Town of Blackstone. The Wal-Mart parking lot (or street frontage) would be used as a vehicle layover location between trips. The bus would travel north on Main Street, serving businesses within the downtown area. At Dinwiddie Avenue, the bus would travel east to access Fort Pickett

by the Main Gate located on Military Road. The route would serve the Southside Virginia Community College (SVCC) site on W 10<sup>th</sup> Street, continue south to serve activity centers located in the south end of Fort Pickett, and loop to return to the SVCC site. The bus would then exit Fort Pickett by the West Gate located on W Entrance Road, travelling south on Main Street to return to the departure point at the Wal-Mart site located on Main Street.

The "evening service" would depart from the Wal-Mart site traveling north to SR-40 (Dinwiddie Avenue). The bus route would access Fort Pickett through the Main Gate and run clockwise around the military base serving key activity centers within Fort Pickett (as listed above). Then exit Fort Pickett by the Main Gate<sup>28</sup>; travel west on Dinwiddie/SR-40 to Main Street, and south on Main Street to serve the Blackstone downtown area, finally returning to the departure point, Wal-Mart.

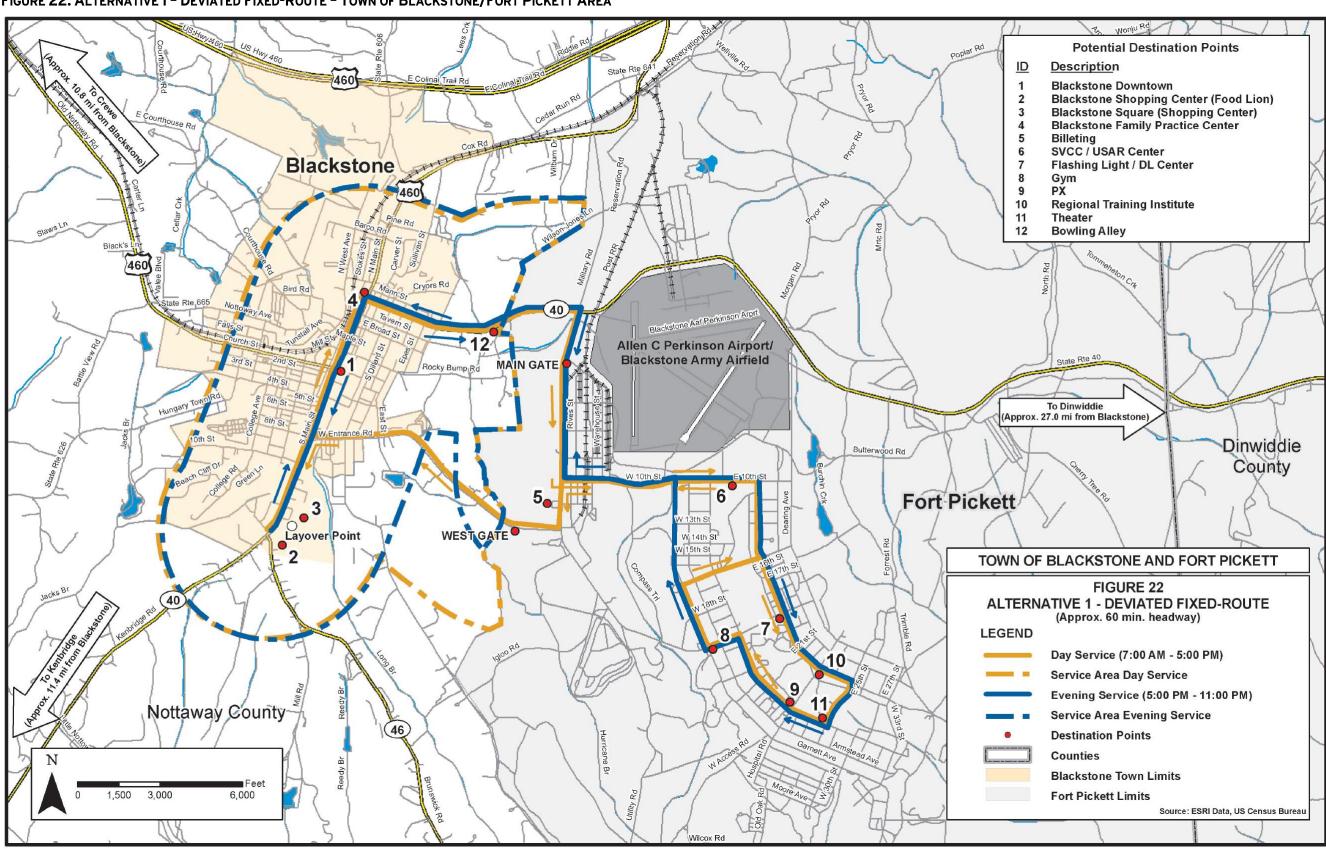
The service would allow deviations up to approximately ¾ mile from the proposed fixed-route to serve riders as requested with the exception of no deviations within the Fort Pickett boundaries. Deviations would be available for ADA-certified riders. The route deviations would allow the service area to cover the majority of the Town. Table 19 shows the advantages and disadvantages of this alternative.

TABLE 19: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE 1 – DEVIATED FIXED-ROUTE – TOWN OF BLACKSTONE/FORT PICKETT AREA

TOWN OF BLACKSTONE/TORT FIGRETT TREA				
Advantages	Disadvantages			
General	General			
Common transfer points between existing BABS routes and Alternative 1 may increase ridership and improve mobility.	ADA-eligible riders may be hesitant to take transit because schedules and routing may be perceived as fixed.			
Service connects downtown Blackstone, other major activity centers, SVCC and Fort Pickett.				
Bus stops placed near key activity centers/ destination points.				
The option of allowing deviation of the fixed-route within the Town of Blackstone will increase ridership and patronage among elderly and disabled populations.				
Financial advantages include controlling costs by setting the number of hours provided and standardizing routes run.  Economic goals of the Town are supported with a deviated fixed-route.				
Fixed schedules may encourage people to use public transportation as riders can anticipate bus arrivals/departures at fixed-route stops.				
Fosters rider independence, allowing passengers to utilize route schedules that fit changing needs.				
Specific	Specific			
"Day Service" will improve transportation options for students of SVCC, especially for students of the GED classes, because the majority of students do not have a driver license.	Residential areas east and west of Main Street are not served directly by the bus route, although these areas are served by other BABS routes. Could also be served by route deviation if applicable.			
The "evening service" will directly connect Fort Pickett with downtown Blackstone.				

<sup>&</sup>lt;sup>28</sup> The West Gate of Fort Pickett closes at 6pm. Therefore, the evening service is re-routed through the Main Gate.

FIGURE 22: ALTERNATIVE 1 - DEVIATED FIXED-ROUTE - TOWN OF BLACKSTONE/FORT PICKETT AREA



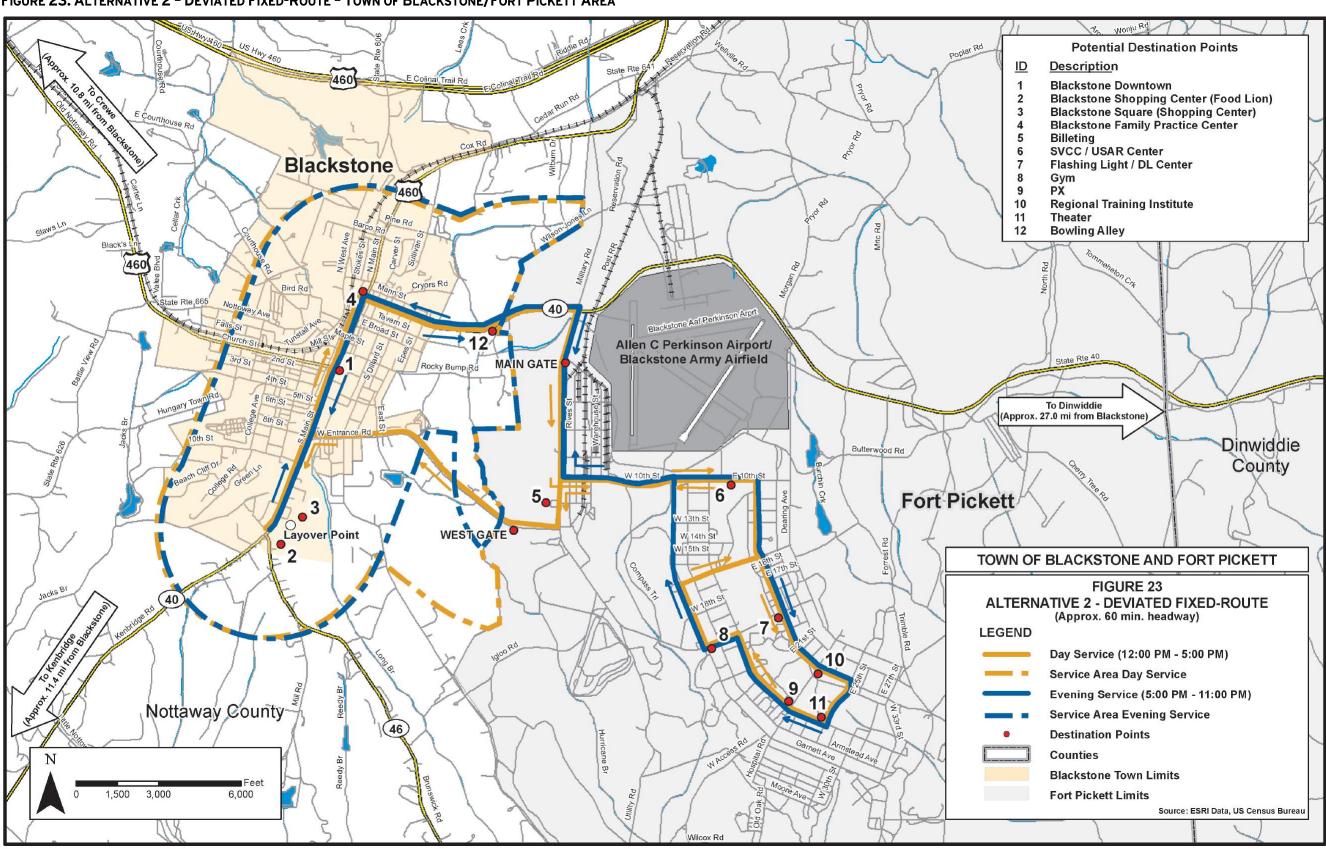
# 2. ALTERNATIVE 2 – DEVIATED FIXED-ROUTE (SERVICE FREQUENCY: 60 MINUTES, DAY SERVICE DURATION: NOON – 5 PM, EVENING SERVICE DURATION: 5 PM – 11 PM) – TOWN OF BLACKSTONE/FORT PICKETT AREA

Alternative 2 has the same route layout, service frequency, and service area as Alternative 1. The only variation is the service duration, which is proposed be from 12 pm (noon) to 5 pm. Figure 23 depicts Alternative 2, and Table 20 shows the advantages and disadvantages of this alternative.

TABLE 20: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE 2 – DEVIATED FIXED-ROUTE – TOWN OF BLACKSTONE/FORT PICKETT AREA

Advantages	Disadvantages
General	General
Common transfer points between existing BABS routes and Alternative 2 may increase ridership and improve mobility.	ADA-eligible riders may be hesitant to take transit because schedules and routing may be perceived as fixed.
Service connects Blackstone downtown, other major activity centers, SVCC and Fort Pickett.	
Bus stops placed near key activity centers/ destination points.	
The option of allowing deviation of the fixed-route within the Town of Blackstone will increase ridership and patronage among elderly and disabled populations.	
Financial advantages include controlling costs by setting the number of hours provided and standardizing routes run. Economic goals of the Town are supported with a deviated fixed-route.	
Fixed schedules may encourage people to use public transportation as riders can anticipate bus arrivals/departures at fixed-route stops.	
Fosters rider independence, allowing passengers to utilize route schedules that fit changing needs.	
Specific	Specific
"Day Service" will improve transportation options for students of SVCC, especially for students of the GED classes, because the majority of students do not have a driver license	Residential areas east and west of Main Street are not served directly by the bus route, although these areas are served by other BABS routes would be served by route deviations.
The "evening service" will directly connect Fort Pickett with downtown Blackstone.	Shorter service duration as compared to Alternative 1. Initially service would be provided noon to 5 pm; if ridership is warranted, hours of operation could be increased.
Lower operational cost as compared to Alternative 1, due to shorter service hours.	

FIGURE 23: ALTERNATIVE 2 - DEVIATED FIXED-ROUTE - TOWN OF BLACKSTONE/FORT PICKETT AREA



3. ALTERNATIVE 3 – DEVIATED FIXED-ROUTE (SERVICE FREQUENCY: 90 MINUTES, DAY SERVICE DURATION: 7 AM – 5 PM, EVENING SERVICE DURATION: 5 PM – 11 PM) – TOWN OF BLACKSTONE/FORT PICKETT AREA

Under Alternative 3, the proposed deviated fixed-route would cover most of the key activity centers/potential destination points located within the limits of the Town of Blackstone, as listed below:

- Southern part of Main Street/Blackstone downtown
- Blackstone Shopping Center (Food Lion)
- Blackstone Square (Shopping Center)
- Blackstone Family Practice

Key activity centers/potential destination points served within the limits of Fort Pickett include:

- SVCC / USAR Center
- Regional Training Institute
- Flashing Light / DL Center
- Theater

• Gym

• Bowling Alley

PX

**Figure 24** depicts Alternative 3 for the Town of Blackstone/Fort Pickett area. The length of the route during "day service" is approximately 17.3 miles, with a round trip time of approximately one hour and a half, assuming an operating speed of 15 miles per hour. Approximate headway between runs would be 90 minutes. Service hours are proposed as 7 am to 5 pm weekdays.

The length of the route during "evening service" is approximately 15.5 miles, with a round trip time of approximately one hour, assuming an operating speed of 15 miles per hour. Approximate headway between runs would be 60 minutes, using one vehicle. Service hours are proposed as 5 pm to 11 pm weekdays.

The "day service" would depart from the Wal-Mart site located on Main Street in the south end of the Town of Blackstone. The bus would travel north on Main Street to 8<sup>th</sup> Street. At 8<sup>th</sup> Street the route would turn left and wind through the residential areas located west of downtown Blackstone. The route crosses Main Street at Barco Road and travels eastbound on SR-40 (Dinwiddie Avenue) to access Fort Pickett by the Main Gate located on Military Road. The route would serve the SVCC site on W 10<sup>th</sup> Street continuing south to serve activity centers located in the south end of Fort Pickett. The bus will then loop to return to the SVCC site, exiting Fort Pickett by the West Gate located on W Entrance Road, travelling south on Main Street to return to the departure point at the Wal-Mart site located on Main Street.

The "evening service" route layout is the same as Alternative 1 above.

The service would allow deviations up to approximately ¾ mile from the proposed fixed-route to serve riders as requested with the exception of no deviations within the Fort Pickett boundaries. Deviations would be available for ADA-certified riders. The route deviations would allow the service area to cover the majority of the Town. Table 21 shows the advantages and disadvantages of this alternative.

FIGURE 24: ALTERNATIVE 3 - DEVIATED FIXED-ROUTE - TOWN OF BLACKSTONE/FORT PICKETT AREA

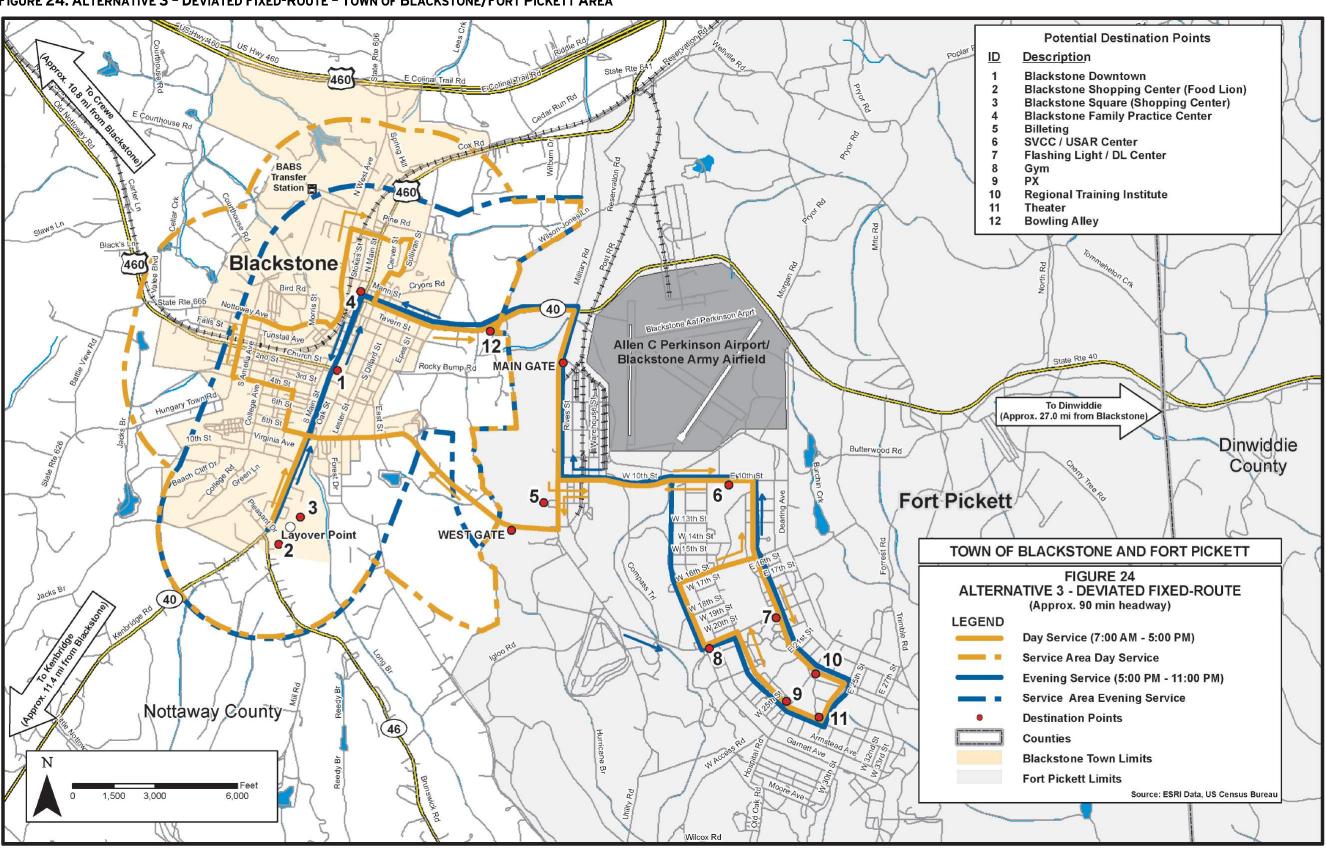


TABLE 21: ADVANTAGES AND DISADVANTAGES OF ALTERNATIVE 3 – DEVIATED FIXED-ROUTE – TOWN OF BLACKSTONE/FORT PICKETT AREA

Advantages	Disadvantages
General	General
Common transfer points between existing BABS routes and Alternative 3 may increase ridership and improve mobility.	ADA-eligible riders may be hesitant to take transit because schedules and routing may be perceived as fixed.
The option of allowing deviation of the fixed-route within the Town of Blackstone will increase ridership and patronage among elderly and disabled populations.	
Bus stops placed near key activity centers/ destination points.	
Financial advantages include controlling costs by setting the number of hours provided and standardizing routes run.  Economic goals of the Town are supported with a deviated fixed-route.	
Fixed schedules may encourage people to use public transportation as riders can anticipate bus arrivals/departures at fixed-route stops.	
Fosters rider independence, allowing passengers to utilize route schedules that fit changing needs.	
Specific	Specific
"Day Service" will improve transportation options for students of SVCC, especially for students of the GED classes, because the majority of students do not have a driver license.	Less coverage of downtown Blackstone compared to Alternative 1 and Alternative 2.
"Day Service" connects major activity centers located in the south end of the Town, residential areas on the west side of the Town and Fort Pickett.	Longer route and hence longer travel time as compared to Alternative 1 and Alternative 2.
Increase the frequency of service and reduce waiting time in the west side of the Town.	Individual BABS route ridership may decrease due to duplication of some service within the residential area(s).
The "evening service" will directly connect Fort Pickett with downtown Blackstone.	

# F. Organizational Structure

This section examines the organizational requirements for implementing public transportation service in the Town of Blackstone/Fort Pickett area.

### 1. Institutional Structure

Currently, there is no public transportation service within Fort Pickett. However, two miles away, in the Town of Blackstone, BABS operates the public transportation system for the Town. It is recommended that BABS operates the service to connect the Town of Blackstone with Fort Pickett.<sup>29</sup> BABS operates buses on a deviated fixed-route schedule. BABS began operation in 2003 serving the Town of Blackstone. Currently, service has expanded serving eight counties in south central

<sup>&</sup>lt;sup>29</sup> BABS is suggested as a preferred provider for Fort Pickett due to its existing and established service in nearby Blackstone. Similar service could be provided by another organization or agency.

Virginia, including the towns of Kenbridge, Victoria, Lunenburg Courthouse, Burkeville, Crewe, Brunswick, Dinwiddie, and surrounding areas. BABS service currently operates eight routes.

Representatives of BABS were interviewed for this feasibility study to assess the implementation of expanded transit services. They expressed interest in expanding transit services to Fort Pickett if funding can be determined.

### 2. OPERATIONS STAFFING

BABS operations are under the supervision of the Town of Blackstone. BABS obtains funding through federal and state grants made to individual local jurisdictions in which it operates transit. However, representatives of local jurisdictions do not have direct involvement in BABS operations.

For all alternatives the following staffing is required:

- Vehicle operators A minimum of three part-time drivers would be needed; vehicle operators are required to have a Commercial Driver's License (CDL) with Passenger Endorsement (Class P)
- Administrative It is assumed that administrative duties would be performed within the existing framework of existing personnel at BABS
- Maintenance BABS would be responsible for providing vehicle maintenance. All maintenance would be performed at the BABS maintenance facility

## G. Costs and Funding Sources

#### 1. CAPITAL COSTS

As many as two vehicles would be needed to operate any of the three service alternatives under consideration. A medium-sized vehicle<sup>30</sup> would be suitable to meet the demand, especially for the "evening service," where larger groups of military personnel are expected to use the service. A small body-on-chassis vehicle would be used in the case of a primary vehicle malfunction or regular maintenance. Both vehicles should be fully capable of loading and transporting passengers who use wheelchairs.

DRPT transit service guidelines estimate the cost for a body-on-chassis vehicle to be \$65,000. The backup bus would be a smaller bus from the current BABS inventory.

The anticipated capital cost estimate is shown in Table 22.

TABLE 22: ANTICIPATED CAPITAL COST ESTIMATE AND FUNDING CONTRIBUTIONS –
TOWN OF BLACKSTONE/FORT PICKETT AREA

	Capital Costs	<b>Anticipated Funding Contributions</b>				
Transit Service		Federal State Local				
Alternative	Vehicle	(80%)	(10%)	(10%)		
Alternative 1	\$130,000	\$104,000	\$13,000	\$13,000		
Alternative 2	\$130,000	\$104,000	\$13,000	\$13,000		
Alternative 3	\$130,000	\$104,000	\$13,000	\$13,000		

<sup>&</sup>lt;sup>30</sup> BABS current fleet includes a majority of vehicles that transport between 12 and 18 persons. The proposed vehicle to be used on the new Town of Blackstone/Fort Pickett area would likely need to be larger given the anticipated number of military personnel that would use at least the evening service.

### 2. OPERATING COSTS

Operating costs include labor, maintenance, consumable supplies (such as fuel and tires), and administration. Operating costs per year for deviated fixed-route Systems are based on *BABS Transit Development plan (TDP – 2009)*. <sup>31</sup> Average operation costs were calculated at \$2.20 per mile and \$35.00 per hour. It was found that the per vehicle-revenue-hour basis was a more conservative approach for the three alternative services and shown in **Table 23**.

Operating costs are balanced by farebox return as well as local, state, and federal funding support for operations. Farebox return has been estimated using a fare of \$0.50 one way for the deviated fixed-route options, which is applicable to all alternatives. Monthly ridership (1,300 persons/month) has been estimated based on number of students that attend the SVCC (assumes an average of 20 persons/day would utilize transit) and the anticipated military personnel likely to use the service (assumes an average of 40 military personnel/day would utilize transit). It should be noted that farebox return covers only a small portion of operating costs. Therefore, inaccuracies in ridership estimation have little effect on the estimate of needed operations funding support.

It should also be noted that evaluations based on estimated farebox revenue alone discount the social benefits of growing transit service such as providing mobility. Using public transportation to travel where one wants to go, at times relatively convenient to one's schedule becomes an essential part of the community's transportation system.

The anticipated annual operating cost estimate is shown in Table 23.

TABLE 23: ANTICIPATED ANNUAL OPERATING COST ESTIMATE AND FUNDING CONTRIBUTIONS— TOWN OF BLACKSTONE/FORT PICKETT AREA

Transit		Annual	Cost	Annual	Estimated		Anticipated Funding Contributions		
Service Alternative	Hours of Operation		per Hour	Operating Cost	Farebox Revenue <sup>1</sup>	Operating Deficit	Federal (50%)	State (18%)	Local (32%)
Alternative 1	16	4,160	\$35	\$145,600	\$15,600	\$130,000	\$65,000	\$23,400	\$41,600
Alternative 2	11	2,860	\$35	\$100,100	\$13,200	\$86,900	\$43,450	\$15,640	\$27,810
Alternative 3	16	4,160	\$35	\$145,600	\$15,600	\$130,000	\$65,000	\$23,400	\$41,600

Notes:

### 3. FUNDING SOURCES

It is assumed funding for these alternatives would be provided by FTA Section 5311 (rural areas). Information on other options is provided below.

The application deadline for requesting capital and operating support is February 1, 2010 for FY2011 (October 1, 2010 – September 30, 2011). The federal component of the funds would be available at the earliest on October 1, 2010 for FY2011.

<sup>&</sup>lt;sup>1</sup> Calculated using a \$0.50 per trip fare for deviated fixed-route options (all alternatives) based on round trips for each. A projected ridership of 1,300 passengers per month is used in estimating annual farebox revenue. Ridership of 1,100 is used for Alternative 2.

<sup>&</sup>lt;sup>31</sup> BABS data is intended to be representative of what costs might be for similar transit service, regardless of specific service provider.

Based on information provided by representatives of BABS, transit systems have a good level of government support, but finances are constrained. The BABS operation and maintenance budget for fiscal year 2009 totals approximately \$574,000. Sources of these funds are shown in Table 24.

TABLE 24: BLACKSTONE AREA BUS SYSTEM (BABS) OPERATION AND MAINTENANCE BUDGET FY 2009 SOURCE FUNDS

Source	Amount (Dollars)	Percentage of Total Funds
Federal Funds	\$239,000	43%
State Funds	\$144,000	26%
Local Government	\$171,100	31%

Source: Blackstone Area Bus System administration personnel

Notes:

Capital costs are also funded by a combination of federal, state, and local funds. Eligible capital expenses include the cost of transit vehicles, associated capital equipment, such as mobile radios, fareboxes, bus shelters, and bus stop signing. Funding support for capital costs is typically distributed as follows:

Federal: 80 percentState: 10 percentLocal: 10 percent

It should be noted that the state contribution can vary significantly from year to year.

**Table 25** compares the three service alternatives against one another using several evaluation criteria.

<sup>&</sup>lt;sup>1</sup> Percentage of total funds for BABS takes into account \$20,450 (4% of total budget, \$574,550) from the passenger fares. In reality, these farebox and other revenue funds are removed from the overall operating costs prior to calculating federal/state/local percentages.

TABLE 25: SERVICE ALTERNATIVES COMPARISON – TOWN OF BLACKSTONE/FORT PICKETT AREA

Service	Evaluation Criteria						
Alternative:							
Deviated Fixed-							
Route	Cost <sup>1</sup>	Route Length	User Groups	Route Coverage	Route Deviations	Headways/Hours of Operation	Convenience
Day Service – Alternative 1	Operating Cost/Year <sup>2</sup> = \$91K Capital Cost/Vehicle <sup>3</sup> = \$130K	Approximately 15 miles	Students of the Southside Virginia Community College (SVCC); residents close to the commercial area of downtown Blackstone; Fort Pickett personnel	Route covers Blackstone downtown (From the south end of the town to Dinwiddie Avenue).	Shorter fixed-route may lead to more route deviations.	Recommended Headway = 60 minutes Hours of operation = 7 am to 5 pm	May be necessary to make a bus transfers.
Day Service – Alternative 2	Operating Cost/Year <sup>2</sup> = \$45.5K Capital Cost/Vehicle <sup>3</sup> = \$130K	Approximately 15 miles	Students of the Southside Virginia Community College (SVCC); residents close to the commercial area of downtown Blackstone; Fort Pickett personnel	Route covers Blackstone downtown (From the south end of the town to Dinwiddie Avenue).	Shorter fixed-route may lead to more route deviations.	Recommended Headway = 60 minutes Hours of operation = noon to 5 pm	May be necessary to make a bus transfers.
Day Service – Alternative 3	Operating Cost/Year <sup>2</sup> = \$91K Capital Cost/Vehicle <sup>3</sup> = \$130K	Approximately 17 miles	Students of the SVCC; residents west of Main Street; Fort Pickett personnel	Route partially covers the commercial area (From south end of the town until 8th St). Route covers residential areas west side of the town.	Less deviation due to better coverage.	Recommended Headway = 90 minutes Hours of operation = 7 am to 5 pm	Close bus stops to residential areas.
Evening Service – All Alternatives	Operating Cost/Year <sup>2</sup> = \$54.6K Capital Cost/Vehicle <sup>3</sup> = \$130K	Approximately 15½ miles	Town of Blackstone residents; Fort Pickett personnel	Route covers Main Street in downtown Blackstone (From the south end of the town to Dinwiddie Avenue).	No deviations within Fort Pickett.	Recommended Headway = 60 minutes Hours of operation = 5 pm – 11 pm	Direct route between Fort Pickett and Main Street in downtown Blackstone.

### Notes for all alternatives:

- Fare for deviated fixed-route service typically ranges from \$0.50 to \$1.00. (Based on BABS current transit service fare)
- Capital costs would be \$65,000 per vehicle but should assume 2 vehicles needed. Capital costs will be the same for all alternatives.
- Staffing requirements will be the same for all alternatives.
- Operational complexity will be the same for all alternatives.

### Specific notes:

<sup>&</sup>lt;sup>1</sup> Assumes an existing service such as BABS would extend service to the area. Staffing requirements would be folded into existing personnel requirements.

<sup>&</sup>lt;sup>2</sup> Operating costs/year for deviated fixed-route systems are based on BABS TDP (2009). Average operation costs were calculated at \$2.2/mile and \$35/hour.

<sup>&</sup>lt;sup>3</sup> Capital cost/vehicle is based on two vehicles purchased.

# **RECOMMENDATIONS**

All three alternatives described above are feasible in terms of meeting the unmet transportation needs in the Town of Blackstone/Fort Pickett. All alternatives provide additional transportation service for the citizens of the Town of Blackstone, military personnel, SVCC' students and citizens working on the base to travel between Fort Pickett and the downtown businesses and commercial area on the south end of Main Street (including Wal-Mart).

All alternatives offer opportunities for future regional connectivity of transportation services. Existing nearby transit services are provided only by BABS, the recommended provider for future transit service. As such, there is no near-term need for coordination between different providers. However, all alternatives presented will easily accommodate future coordination with nearby and regional providers.

### A. Service Plan

### 1. NEAR TERM SERVICES

Based on quantitative and qualitative data analysis<sup>32</sup> concerning transit needs, this study recommends Alternative 2 as *initial service*.

Alternative 2 – Deviated Fixed-Route (Service Frequency: 60 minutes, Day Service Duration: noon – 5 pm, Evening Service Duration: 5 pm – 11 pm)

Day service for Alternative 2 covers the same service area as Alternative 1, but has a lower operating cost due to shorter service hours. This alternative also provides more frequency of trips compared to Alternative 3, thereby increasing convenience and attractiveness. It concentrates the service area within Blackstone downtown, the commercial areas in the south end of the Town, and Fort Pickett offering a direct connection between the Town of Blackstone and Fort Pickett.

The route would adopt the existing BABS route deviation policy, which allows deviation up to  $\frac{3}{4}$  mile for ADA certified riders.

Additional information on the recommended alternative's service characteristics is provided in the Transit Service Plan Summary Table, Table 26.

#### 2. LONG TERM SERVICES

In the *longer term*, when transit service has been in place, if ridership builds and it becomes feasible, the system could expand the service hours from 7 am to 5 pm (Alternative 1).

Evening service would run from 5 pm to 11 pm, service frequency between buses is approximately 60 minutes. Should ridership grow further, the system fleet could be expanded to two vehicles, reducing the frequency to approximately 30 minutes.

<sup>32</sup> Qualitative and quantitative data comes from the following sources:

a) Review of relevant studies and local plans.

b) Demographic analysis based on Census 2000 information (population, density, number of households, age distribution, and households with no auto availability).

Local stakeholders and transit providers input provided in interviews and telephone conversations. (See Appendix A for complete list).

### 3. TRANSIT SUPPORTIVE DEVELOPMENT

Given that capital and operating costs of transit service requires public subsidy, it is important for development patterns to continue to grow along anticipated corridors to support higher transit usage. Most commonly accepted measures of transit supportiveness, such as population density, are geared toward urban areas. Nonetheless, some factors are applicable to rural areas and small towns. As redevelopment occurs in and around Town of Blackstone/Fort Pickett area, planners can keep in mind the following factors that support higher transit use.

- Concentration of employment. At present, the Town of Blackstone/Fort Pickett area has a concentration of retail employment along Main Street with some along Route 40. As redevelopment occurs, the Town should encourage re-using or constructing new employment centers near those already developed areas.
- Mix of use in the downtown area. The presence of a variety of shops, offices, and restaurants in the downtown encourages people with different trip purposes to come to one location that is readily accessible by transit. The Town could consider increasing the amount of housing permitted in a near downtown.
- Consider implementing parking meters. The presence of parking meters on the streets and in public parking lots in Town of Blackstone downtown would encourage transit use over driving, as well as generate revenues for public space improvements. However, due to the rural nature of the Town, the pricing of parking would need to be weighed carefully so that customers are not encouraged to shop outside the Town of Blackstone downtown.

### **B.** Organizational Plan

The study recommends extending existing Blackstone Area Bus System (BABS) service to connect the Town of Blackstone with Fort Pickett.<sup>33</sup> BABS operations and institutional structure are established and under the supervision of the Town of Blackstone. Using the BABS organization would require only an extension of existing services and operations, rather than the creation of a new institution.

Additional information on the organizational plan and associated staffing is provided in the Transit Service Plan Summary Table, Table 26.

### C. Financial Plan

The recommended alternative has an estimated operating cost of \$100,000 and capital costs of \$71,500. Farebox revenue is projected to be \$13,200, with a combination of federal, state, and local funds filling out needed revenue.

Additional information on the costs and revenue associated with the recommended alternative is provided in the Transit Service Plan Summary, **Table 26**.

# D. Transit Service Plan Summary

**Table 26** summarizes the characteristics of the recommended transit service for the Town of Blackstone/Fort Pickett area.

<sup>&</sup>lt;sup>33</sup> BABS is suggested as a preferred provider due to its existing and established service, similar service could be provided by another organization or agency.

TABLE 26: TRANSIT SERVICE PLAN - TOWN OF BLACKSTONE/FORT PICKETT

SERVICE PLAN	DESCRIPTION
Service plan – Near term	Alternative 2 - Deviated Fixed Route (Starts service at noon)
Service Plan – Long term	If ridership grows and it becomes feasible, day service hours may be expanded from 7 am to 5 pm (Alternative 1). Further growth in ridership could be accommodated by adding and additional vehicle.
Service characteristics	<ul> <li>Type of Service: Deviated Fixed-Route</li> <li>Route length: approximately 15 miles</li> <li>Route Deviation: ¾ mile from fixed route for ADA certified riders</li> <li>Service Frequency: 60 minutes</li> <li>Service Hours: noon to 5:00 pm weekdays (5 hours/day)</li> <li>Fare: \$0.50 (one-way)</li> </ul>
Performance Data	Trips/hour: 1 (Every 60 minutes) Cost /trip: \$33.00 (Based on estimated cost/mile=\$2.20)
User groups	<ul> <li>Students of the Southside Virginia Community College (SVCC)</li> <li>Residents close to the commercial area of downtown Blackstone</li> <li>Fort Pickett personnel</li> </ul>
Estimated Ridership	1,300 person/month
Vehicle Requirements	<ul> <li>A medium-sized vehicle would be suitable to meet the demand, especially the "evening service," where groups of military personnel are expected to use the service.</li> <li>A small body-on-chassis vehicle would be used in the case of a primary vehicle malfunction or regular maintenance. This backup bus would be a smaller bus from the current BABS inventory.</li> </ul>
ORGANIZATIONAL PLA	N
Service Provider	Currently, there is no public transportation service within Fort Pickett. However, two miles away, in the Town of Blackstone, BABS operates the public transportation system for the Town. It is recommended that BABS operates the service to connect the Town of Blackstone with Fort Pickett. BABS operations are under the supervision of the Town of Blackstone. BABS obtains funding through federal and state grants made to individual local jurisdictions in which it operates transit. However, representatives of local jurisdiction do not have direct involvement in BABS operations.
Staffing	<ul> <li>Vehicle operators – A minimum of three part-time drivers would be needed. Vehicle operators are required to have a Commercial Driver's License (CDL) with Passenger Endorsement (Class P).</li> <li>Administrative – It is assumed that administrative duties would be performed within the existing framework of existing personnel at BABS.</li> <li>Maintenance – BABS would be responsible for providing vehicle maintenance.</li> </ul>
FINANCIAL PLAN <sup>34</sup>	
Capital Cost <sup>35</sup> /Operating Cost (Based on above vehicle req's)	Operating Cost: \$100,100 Capital Cost: \$65,000 per vehicle – 2 vehicles needed – total of \$130,000 (split 80% federal / 10% state / 10% local)
Annual Operating Cost	\$100,100
Farebox Revenue/year	\$13,200 (13% of total \$100,100 needed)
Anticipated Funding Contributions	Federal Funds (50%): \$43,450 State Funds (18%): \$15,640
(After Farebox revenue)	Local Funds (32%): \$27,810 <b>Total</b> - \$86,900/year in operation/maintenance

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<sup>&</sup>lt;sup>34</sup> BABS cost data is used because it is an existing system with a history of providing deviated fixed-route service. Data is intended to be representative of what costs might be for a similar service, regardless of specific service provider or transit agency.

<sup>&</sup>lt;sup>35</sup> Capital costs include mobile radios, farebox, bus shelters, and bus stop signing.

# APPENDIX A - LIST OF LOCAL STAKEHOLDERS

Below is a list of local stakeholders and representatives that have been contacted (using meetings, phone interviews, or US Postal Service) throughout the project for information or input into the goals and objectives of this project, the transportation needs of the community, the operation and maintenance of difference systems, and/or the potential funding mechanisms for public transportation in the Town of Chase City and/or the Town of Blackstone/Fort Pickett area.

### Fort Pickett / Town of Blackstone

BABS – Jennifer Beck

Town of Blackstone - Larry Palmore

Fort Pickett - Colonel T. Wilkinson, Michael McGhee

SVCC - Woodson Irby, Duncan Quicke, Dan Irby, and Sandra Thompson

Blackstone Chamber of Commerce – Brenda Carter

### Town of Chase City

LCAA A - Johnny Cleaton, Robin McGhee

Town of Chase City - Mayor Eddie Bratton, and Rickey Reese

Mecklenburg County - Wayne Carter

Chase City Nursing and Rehabilitation Center – Sharon Barns

Town of Chase City Chamber of Commerce – RC Hartley

Estes Community Center - Bonnie Gilliam

YMCA - Tim Mill

Local Churches – letters were sent to 15 local churches via USPS to solicit information regarding transportation needs of their congregation(s). Only the Centenary United Methodist Church responded.